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Issue 44 - December 2009  
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Show report

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## EURO MILITAIRE 2009

**E**uro Militaire 2009 was held over the weekend of 19 and 20 September at Folkestone. Euro Militaire is one of the great model shows, and this year was no exception. Highlights included a display of vehicles including a Panther Ausf. A and Panzer IV, re-enactments, a busy vendors' area and of course the famous model competition display. The standard of entries was very high this year. ADH Publishing was present at the show, and we will have Marcus Nicholls' full report in words and pictures for Issue 45 of Model Military International.



### TASCA TO RELEASE 1:24 PANZER II

Tasca Modellismo of Japan has announced a new 1:24 scale kit of the Panzer II, Ausf. F for release in late November.

The lower hull is one piece as is the basic turret. Tracks are made up from individual links. Each leaf spring assembly comprises eight parts. Adjusting the tension of the track is possible by moving the idler wheel. The armoured driver's visor is offered as separate parts so the top and bottom may be posed either open or closed. Transparent parts are provided for the turret periscope and the light lens. Photo-etch parts for clamps, the air release pipe cover and the tool box are also included. Markings are supplied for two tanks deployed on the Eastern Front. A Commander figure is scheduled as separate future release.

Thanks to Pacific Coast Models for the information  
[www.pacmodels.com](http://www.pacmodels.com)



### MODELKRAFT 2010

Milton Keynes Scale Model Club is taking over Stantonbury Leisure Centre, Milton Keynes, MK14 6BN on Sunday 7th February 2010 and hosting one of the biggest model shows in the country - ModelKraft 2010. Pop along to the show any time from 10am to 4pm and you will see a wide range of amazing miniature hand crafted models of practically every imaginable subject - from cars, and planes to boats, to figures, science fiction, and war time subject matter. True to life dioramas will present a true slice of life in miniature. ModelKraft brings together, for one day only, over 100 Model Clubs and Traders, showcasing many thousands of the best models as well as suppliers of kits, accessories and tools for the modeller.

Modellers of all skill levels are invited to bring their models along and enter them into our well respected model competition with classes to cover all model types.

Entry costs just £4 for adults and £2 for children and concessions. As an added bonus, you can bring the whole family for £6.

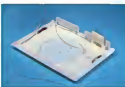
For information about the club and the show please visit [www.mksmc.co.uk](http://www.mksmc.co.uk), contact the club secretary on 01582 660984, or email [secretary@mksmc.co.uk](mailto:secretary@mksmc.co.uk)



### PRO ART MODELS M1078 LMTV UPGRADE

Pro Art Models has just released a comprehensive update set for Trumpeter's 1:35 scale M1078 LMTV truck. The set will completely replace the cab with resin and photo-etched detail inside and out. New resin wheels and chassis details are also included. We will have a full review of this impressive looking set in a future issue of Model Military International.

Check out Pro Art's website for more details [www.proartmodels.be](http://www.proartmodels.be)



### TAMIYA 1:35 ISU-152 IMMINENT

Tamiya's brand new 1:35 scale ISU-152 is due for Japanese release in November. This kit will feature link and length tracks and two crew figures. We will be bringing you more news of this exciting release as it comes to hand.



### HANSLOPE MODEL EXPO

Introducing a new model event for the Milton Keynes and Northampton areas featuring:

MAT'S MARVELLOUS MODEL MUSEUM and THE HANSLOPE KIT SWAP  
Date: Sunday 29th November 2009, 10.00am - 4.00pm

Location: Hanslope Village Hall, Newport Road, Hanslope, Bucks, MK19 7NZ  
This is new modelling event for the area, based around local resident Mat Irvine's collection of model and props from his time as a special effects designer on such TV programmes as Doctor Who; Blake's 7; The Sky at Night and many more. So if you want to see the original K-9; Orac or the Liberator and a lot more besides, this is the opportunity.

But this is not all, for it is also going to be a Kit Swap Meet, planned for individual modellers to come along and take a table (for a modest £5) to sell their unwanted kits - just in time for Christmas!

Hanslope is one of the largest villages in Buckinghamshire and located conveniently mid-way between Milton Keynes and Northampton, close to the M1 and A5.

(SatNav or Google Map the post code. There will also be local signage on the day.)

This is going to be a select event, and one that is for fun not profit, (all entry and table fees go to the Village Hall funds), and places are limited. So for those wanting to sell all those spare kits, it is highly recommended that you book early. Booking tables is on a first-come-first-serve basis - check out the website for more details and a booking form  
[www.hanslopedmodelexpo.co.uk](http://www.hanslopedmodelexpo.co.uk)



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Bruce Culver describes early developments of the Mittlere Schuetzenpanzerwagen leading up to the Sd.Kfz. 251 Ausf. C



## SD.KFZ. 251 AUSF. C MITTLERE SCHUETZENPANZERWAGEN

by Bruce Culver

**D**esign of the Sd.Kfz. 251 started in the late 1930s and the first models were delivered in the spring of 1939. All of the development documents were lost during the war, and thus the full story of the design and development of the Sd.Kfz.

251 series is not known. The chassis chosen for the medium personnel carrier was that of the 3-ton halftrack artillery tractor, Sd.Kfz. 11, built by Hanomag and Borgward. A new armoured body was designed to protect the crew. Angled plates gave improved protection with lighter armour.

The new vehicle was designated as the "mittlere Mannschaftstransportwagen" (Sd.Kfz. 251). The Sd.Kfz. 251 was built in four major models, from Ausfuehrung A through D. The first two models (A and B) were very similar. The difference between them was the two extra fixed armour glass vision blocks in the rear body on the Ausf. A. The Ausf. B didn't have these. In other respects the two were nearly identical. Shortly after production began, the name was changed to "mittlere Schuetzenpanzerwagen."

305 of the Ausf. A type were constructed of mild steel. They were used in training and were also issued to combat units, most often as observation vehicles and towing tractors for artillery. They can be identified by the clean bent joint between the upper and lower body sides, this being made from one piece of heavy steel sheet, and the simple flap type front vision ports for the drivers' area. The front and side cooling flaps on the engine section were also thinner than the armoured flaps on the armoured production models.

The armoured bodies for combat

vehicles were not made by the companies that assembled and delivered the finished products. Steel companies skilled in producing high quality armour plate, forming and heat treating it, and welding armour assemblies served as armour fabricators who delivered their assemblies to the production companies as finished basic items, without added details, and already primed according to the specifications in force.

The armoured bodies of the Ausf. A and Ausf. B had all the equipment mounting points welded to the armour plates. The necessary equipment mountings were then bolted to the welded fittings. This was fine for the initial infantry carrier, but when new models carrying different weapons or internal layouts were developed, it required a redesign of the basic body, and bodies could be assembled only for the variant being produced. If an alternate version was needed, the fabricators had to make new bodies, or the assembly firms had to do extensive rework.

These unarmoured Sd.Kfz. 251 Ausf. A are nearly identical to the standard armoured model. Salient features include the straight track midguards, external tool storage on the upper body, two-piece nose design, front top grill, and forward-mounted storage bins. Artwork by Tim Bumb.





The interior of the Sd.Kfz. 251 Ausf. B in South Africa, showing the front internal details. The drivers' seat backs folded to the side for access. Note the lack of an interior floor and the many welded studs and blocks on the armour body walls. The tray seats had flat cushions and folded up to access 40 boxes of MG 34 ammunition under the seats. To the left of the steering wheel is the hand wheel that opened and closed the cooling air flaps in the top front grill of the engine compartment. Below the seats are the floor racks for 40 boxes of ammunition for the MG 34s. Photo: The South African Museum of Military History via Stephen Tegner.

Based on initial combat reports and suggestions from using troops, development of a new version of the Sd.Kfz. 251 began in 1940. Many of the changes came to simplify the construction of the body and others simplified the task of adapting the Sd.Kfz. 251 to new requirements. There were also some weaknesses discovered, and features of the new body eliminated or reduced many of the problem areas. The new model was the Ausf. C, and appeared in early

1941. Though similar to the Ausf. A and B, it differed significantly.

The major external changes reworked the engine section. The Ausf. A and B had a complex narrow nose with many angles and an open vent grill on the top of the nose area with controllable armoured doors. When opened for better cooling, the side flaps also allowed small arms fire or shell fragments to enter the engine compartment.



This excellent view of the nose of the South African Ausf. B shows the complex design. Louvers adjustable by the driver could close off the upper grill, and a wheel on the left of the firewall by the driver opened and closed the side air vent flaps. The front bumper is missing, as are the fenders, giving a better view of the front axle. Photo: The South African Museum of Military History via Stephen Tegner.



The Sd.Kfz. 251 Ausf. A and B had fittings arranged neatly but scattered over the interior. Early vehicles had the radio (FuSprG I) mounted on the side wall exposed to the weather. Later, the radio was moved under the cowl in front of the right front seat. Separate storage brackets for six Kar 98k rifles were placed around the vehicle. Two can be seen behind the radio operator on the upper wall. Photo: Bruce Culver.



The nose section for the new Ausf. C was a single 14.5mm armour plate angled at 20 degrees to improve protection, and the prominent front bumper was eliminated. In place of the open cooling flaps, cooling air now traveled through an opening behind the nose plate ahead of the front axle. Additional air passed through protected openings under armoured side cowls on the engine section. This improved cooling with better protection.

The mudguards over the tracks on the Ausf. A and B were straight, and in some situations, debris caught by the tracks had fouled the drive sprockets. To prevent this, the forward section of the mudguards was raised for more clearance, and the storage boxes on the mudguards were moved to the rear. The tool storage was altered and all the tools previously

placed on the exterior of the armour body were mounted inside or on the new mudguards. This reduced the chance of losing tools to snagging on foliage or debris.

Production expanded for the Sd.Kfz. 251 program in 1941 as the demand for the vehicles increased. Some new armour fabricators, brought into the program to free the experienced fabricators for building armour assemblies for heavier tanks, did not build welded bodies, and a riveted body was designed as an expedient. It appeared in 1941 alongside welded examples made by the more experienced fabricators. The riveted bodies were brought into the assembly lines as received and were not separated in production records.

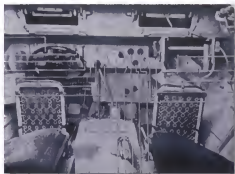
There were a number of technical changes to improve reliability and to ease production

involving the engine, suspension, tracks and various mechanical components. Additional usage reports generated more changes and requests for different variants. To accommodate these changes, the interior was completely redesigned, along with almost all the internal equipment.

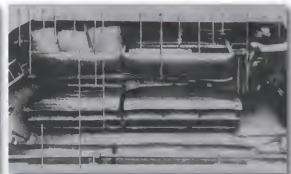
The major change was to delete the many welded on studs to mount brackets. In place of these, two heavy sheet metal liners were fitted inside the armour body and bolted in place, one on each side. All mounting arrangements for storage and crew equipment were attached to these liners. This allowed any version of the vehicle to be made by adding the appropriate fittings to the liners, so all the fabricated armour bodies could be the same.

Other changes involved the drivers' seats (folding with molded

backs on the Ausf. A and B, fixed with a rectangular frame in the Ausf. C), rifle storage (6 Kar 98K in individual brackets in the Ausf. A and B, 8 Kar 98K in two storage racks in the Ausf. C), main crew seating (flip up tray seats with stowed boxes of MG 34 ammunition below in the Ausf. A and B, hinged adjustable padded seats on storage bins in the Ausf. C), and the provision of storage bins above the rear seats in the Ausf. C. The rear doors were riveted together from two pieces; in the Ausf. C, the rear doors were bent to shape from one piece. There were also minor changes in crew storage, and provision for two MP 38/40 submachine guns with six magazines each, next to the front seats. Pack rails ran along the upper edges of the crew compartment. ▶



Taken from the D660 manual for the Ausf. C, this view shows the revised drivers' area. The original folding seats were replaced by this design, used in most German AFVs. A bracket for a gas mask replaced the cooling flap control wheel, and in the foreground are the new seats with padded cushions, mounted on folding and hinged tubular frames. Photo: Bruce Culver.



From the manual, here is the revised interior of the Sd.Kfz. 251 Ausf. C. The seats sit on storage bins which hold ammunition and other crew equipment. Behind the front seat is an MG 34 on a long tubular bracket, and behind the rear seat are spare barrel carriers. The storage bin for four Kar 98k rifles was open at the bottom with a hinged front panel. Photo: Bruce Culver.

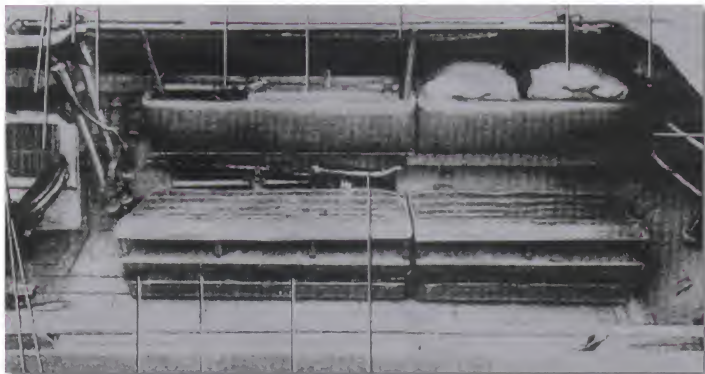


Left side storage may be seen empty here. Photo: Bruce Culver.

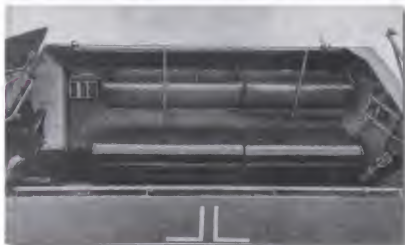




# Think Tank - Sd.Kfz. 251 Ausf. C mittlere Schuetzenpanzerwagen



The right side was very similar to the left, with the same rifle stowage and rear bin. There was a double spare barrel carrier mounted inside each rifle bin hinged front panel. The seat bin tops could be lifted off, and shallow front flaps allowed access when the tops were left in place. Above the right front seat are an MP 40 and a holder for magazines. Just below the upper edge here are hoops to support the roof tarpaulin in bad weather. Photo: Bruce Culver



Empty right side stowage. Photo: Bruce Culver.



Right side weapons stowage. Photo: Bruce Culver.

◀ The new internal layout was so successful it was adopted for the final production model, the Ausf. D, in 1943. There were further production simplifications in the Ausf. D, but the basic design did not change from the layout of the Ausf. C.

Among the many weapons adapted for use on German vehicles were rocket propelled projectiles. The most common type fitted to the Sd.Kfz. 251 was the Nebelwerfer 41, which was introduced in 1941. There were two variants: a 28cm high explosive model and a 32cm type that had an incendiary warhead. Both could be fired from their shipping cases, usually made of wood. In addition, some vehicles carried lighter metal launch frames which could be reloaded. When the wood frames were used, they were usually discarded after firing the rockets.

Two vertical rods were added to the nose of the Sd.Kfz 251 for the driver to use as aiming aids. Range

was limited to 2200 meters, and adjusting the angle of the launch containers allowed more accurate delivery of the rockets on the

target. Over 600,000 projectiles and hundreds of dedicated launchers were produced during the war, and the Nebelwerfer 41

was used from 1941 to the end of the war. Sd.Kfz. 251s equipped with these rockets were often called "Stuka zu Fuss" ("Stuka on Foot"). ■

The former Aberdeen Sd.Kfz. 251 was a riveted model, but the inner liner, seen here at the top of the body and near the bottom, covered the frame and rivets. Here the rifle bin is missing the front panel. Note the rifle muzzle stowage bracket. Below is the stowage bracket for the MG 34. This was a standard fitting found in many vehicles. Photo: Bruce Culver.





The Aberdeen Proving Ground Sd.Kfz. 251 Ausf. C seen during shipment. The riveted body was adopted early in Ausf. C production to allow new armour fabricators to build bodies. Here the vehicle is complete and largely stowed. It was equipped to carry a SMG (heavy machine gun) squad, and had the heavy MG mount over the roof for long range fire. Photo: Bruce Culver.



Mud was used on many fronts besides the well-known practice in North Africa. This Ausf. C in Russia is heavily painted in a mud coating. This is a good view of the identifying features of the Ausf. C – the raised mudguards, simpler nose, cooling cowl on the engine section, and revised stowage and bins. Note the heavy MG 34 mount on the front roof. Artwork by Tim Bumb.



The fighting to take Kharkov in March 1943 was bitter and difficult. Snow was already melting, as seen here. The temporary winter white camouflage often didn't last through the winter, and this Sd.Kfz. 251 Ausf. C shows what commonly happened. If the snow conditions changed quickly, crews often washed off as much of the camouflage as they could. An alternate approach was to smear mud over the white camouflage paint. Artwork by Tim Bumb.

# AIM HIGHER



Illustration by  
Mario Gomez

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▲ The Sd.Kfz. 251 Ausf. C at The Tank Museum, Bovington. The bolted armour is very obvious in this photo.

Darren Thompson takes a close-up look at the bolted-body Sd.Kfz. 251 Ausf. C at The Tank Museum, Bovington.

# SD.KFZ. 251 AUSF. C HALF-TRACK IN DETAIL



▲ The front, right-hand towing hook.



▲ The front, right-hand tie-down point, just aft of the nose plate.



▲ The port for the engine crank starter, without its circular cover, in the armoured nose plate.



▲ Details of the front right-hand suspension.



▲ The front left-hand suspension and steering linkage.





▲ The silencer and exhaust outlet.



▲ Silencer fixing point. Note the liberal use of crown nuts on this vehicle.



▲ The base for the front Noret light, incorporated with the front left-hand tie-down.



▲ The exhaust outlet pipe. This has been squashed and should be circular. One area that can really be improved on all kits is to simply drill this out to obtain a much thinner wall.



▲ One of the many fender tool clips in the closed position.



▲ The same clip, opened.



▲ The retaining bracket for the pointed end of the crowbar.



▲ The opposite end of the crowbar stowing point, takes the flat, levering end.



▲ The driver's side vision port, with the casting numbers clearly visible. Also just visible is the joint between the forward and rear sections of the hull, plus the tie-down points.



▲ Another shot of the driver's side vision port.



▲ The rear left-hand corner of the fighting compartment. The wire mesh is not original.



▲ The rear of the right-hand fender, with the separate beaded edge still in very good condition. Also visible is the mounting bracket and conduit for a rear light.



▲ Detailed view of the rear towing mount.



▲ The rear step in its folded position. Note the top side is diamond pattern tread plate.



▲ The rear compressed air hook-up point for activating the brakes on towed artillery and trailers. The electrical hook-up can also be seen, albeit out of focus!



▲ Right-hand track detail, seen from the rear.



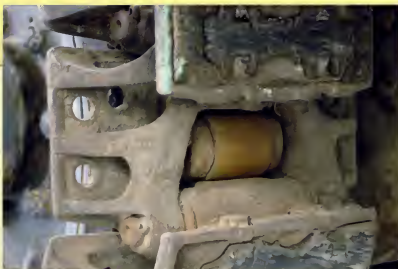
▲ The rear right-hand idler wheel and rearmost outer road wheel.



▲ The right-hand drive sprocket with its multi-faceted rubber tyre and offset metal rollers, a feature often incorrect on even the latest kits.



▲ Details of the track link inner face. Note the wear on the guide teeth and the running marks from the road wheels.



▲ A detail shot of the drive sprocket rollers interlocked with the tracks. Also noteworthy is the heavy wear on the track pads, revealing the base of the pad and the clips holding the rubber in place.



▲ The early style front wheel. Note the notch in the hub and the hole for the tyre valve.



▲ A detailed shot of the bonnet/head hinges. Note the slightly raised bonnet hatches and the cone-head nuts.

◀ Front wheel and tyre detail. Note the central groove on the tyre. This is featured on 1:35 scale kits, so don't be tempted to sand this away to obtain a better joint!



▲ The radio operator's vision block in closed position.



▲ The driver's vision block in the open position.



▲ A distinctive feature of the Sd.Kfz. 251 Ausf. C is its flared bonnet sides, housing air intakes for the engine.



▲ One of the few intact interior details: this floor 'hump' covers the transmission and gearbox and is often undersized in the kits available.



▲ Another view of the transmission/gearbox 'hump'.



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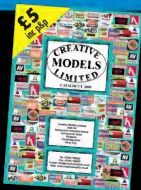
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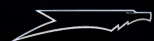
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Soviet Tank Crew 1973-86



**HBB82410**  
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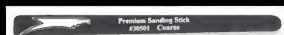


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# "ELINE STAUBIGE ROSE" A DUSTY ROSE



**Luke Pitt constructs and corrects AFV Club's 1:48 scale Sd.Kfz. 251/1 Ausf. C.**

**A**FV Club's new 1:48 scale Sd.Kfz. 251 Ausf. C is moulded in medium green plastic over six sprues. Detail and fit achieves a very high standard. The kit is presented in a standard cardboard package with a first class illustration adorning the box top. The lower hull is moulded in three separate plastic parts and has the axles fixed. The road wheels

are very well detailed with spacer rings in place to allow proper alignment. The front tyres and hubs show superb detail and are correct in both width and height. The lower hull also includes the internal floor as a separate parts with the correct dot pattern tread plate. The tracks are of the rubber band vinyl type and really don't match the detail level

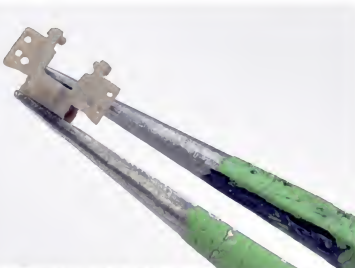
found on the rest of the kit. The Tamlya injected items provided in their range of kits are, for the most part, far superior in this regard.

The internal fixtures of the fighting compartment are very well done for the most part, with only a few select items being either wrong or being moulded a little on the thick side. The front bulkhead has a separate instrument panel with engraved dials as well as

separate driver's foot pedals and gear levers. The slanted steering wheel is very well done as is the separate radio but its rack is an overly thick moulding. The two excellent crew seats come in three parts with the seat and back rest as separate items that show superb cushion detail on one side but lack the spring pattern on the back. The forward hull panel has separate vision port covers with each



The WW2 production tracks are very well detailed for their size but require clean up of fine flash. This was done with the aid of tweezers and a suede brush intended for cleaning shoes.



The track has been cleaned up with the suede brush. Notice the lighting holes in the track.





A small assembly jig was made from plastic card and bar stock. The tracks can be tacked together with liquid glue but this was backed up with a little super glue on each joint.

internal visor having three parts each for excellent detail definition. The two side vision slits also have two part internal armoured glass housings but no hull cutouts for the side vision ports.

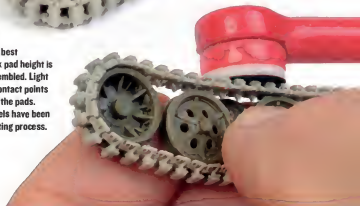
The forward top hull section is a separate part with a bullet splash guard, while on the underside of this is a separate panel with two padded head guards and front grab handle. At the back there are the two hull side bolted flanges as separate parts again for good detail definition. There are the rifle racks with very nice Kar98s and the crew seats. While there is a choice of leather cushions or later wooden slat benches on the sprues you should use the leather cushions for the Ausf.C. There are two separate grab handle railing along the inside of the upper hull sides. The rear doors are both separate with the large Ausf.C type hinges in three parts each and are quite frankly huge for 1:48 scale and are best replaced. All of the door latches are moulded onto the doors but on the upside the doors can be positioned in the open or closed position. However, the doors may be a problem if you position them in the open position as the moldings are overly thick for 1:48 scale. There is the fire extinguisher and ammo racks on the inner rear walls and these are very fine moldings. The internal storage boxes (underneath the bench

seats) are really intended for the Ausf. D version and don't really work for the Ausf. ". They are too high and slope down too much. The side storage compartments are molded very thickly and are closed at the bottom. On the real vehicle only the rear most compartments were closed at the bottom with the forward portion being open. It was hindered to allow it to fold down. From the look of the mouldings it seems that two designers may have worked on this kit. There are mouldings that take your breath away (like the MG 42 for example) while others, like the side storage compartments, look ham fisted by comparison.

The upper hull is a full length moulding with the rear hull panel separate and features some very subtle bolt head and weld seam details. The moulding comes with separate engine bay doors as well as choice of welded or cast armoured intake covers and a one-piece nose plate. In my opinion this is the main fault with this kit. The molding of the hull sides is far too thick for 1:48 scale but it should be remembered that if it was to scale it may well be impossible to build. The side fenders are separate parts and also have very nice bolt head and panel details with the two Ausf. ►



The tracks can now be assembled. The wheels were first press-fitted onto the chassis and then small sections of the track were super glued directly onto the road wheels. The last section added was the upper "sagged" section of track. 4a. The best time to address the track pad height is when the tracks are assembled. Light sanding of the outside contact points will reduce the height of the pads. Note the outer road wheels have been left off to aid in the painting process.



In this view the upper and lower hulls have been joined and track units tested for fit. Note also the inner hull liner is tacked in place.



The "G-iron" is being used to thin out the sides of the upper hull. Note the rear doors have been left off for this very purpose.



In this view the Author has addressed a mistake made when sanding the upper and lower hulls together. The joins were sanded in the mistaken belief that they were smooth. In reality there should be a slight overlap. This mistake (on my part) was addressed with the aid of thin plastic strip.



Plastic card was used to line the interior of the hull interior.



A view through the rear doors.



Scratch built stowage bins and various other custom made items may be seen in this view.



The height of the under seat stowage boxes has also been addressed.

◀ C style headlights. The closed fender stowage boxes are supplied separately as well as the pioneer tools carried on the fenders. The decal sheet is well printed with thin carrier film and provides markings for four vehicles. The first is a vehicle from the Grossdeutschland Pz.Gren.Div operating in Russia in 1943 with a three colour red brown, green and dark yellow camouflage scheme. The second decal choice is a vehicle from the 3.Pz.Div operating at Kursk in the summer of 1943 in overall Dark Yellow. The third is a vehicle operated by the 16.Pz.Div in Russia during the winter and is in an overall white wash finish. The last option is a vehicle from the 14.Pz. Div operating out of the Ukraine

in 1942, this last scheme is in an overall Panzer Grey finish.

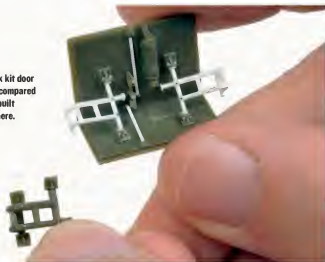
The model is a first class effort let down by in some instances by overly thick mouldings. AFV continues to use flexible material for the tracks and depending on which side of the fence you sit, you will either love them or hate them. The only real problem with the tracks is they lack a little in terms of detail and the track pad is moulded in an "as new" condition so the pad itself is a little thick for my taste. Overall though, the kit is well worth the purchase price and frankly is the only version of the 251 Ausf. C on the market today in 1:48 scale, so that in itself is a good thing.

#### ADMIRING THE PERFUME

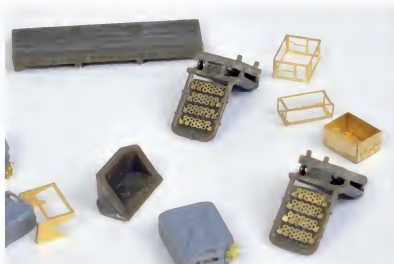
A rose by any other name would smell just as sweet. This is a rather apt description of the AFV Club 1:48 model of the German 251. This little Hanomag has a slight sting to it but it is generally a very sweet kit. I started this build with the tracks. I was fortunate enough to be given the opportunity to test some pre release samples of the World War Two Production tracks for the 251. I must say I was impressed with the samples which basically pushed me to build the AFV 251 kit. My main concern was the track pad height. Bill from World War Two Productions told me he was in a bit of a quandary when mastering these. You either give the customer too little pad

height or too much. Bill has wisely chosen the latter, reasoning that the customer can always reduce the pad height if he wishes. The clean up of these tracks was achieved with the aid of a suede shoe brush and was both quick and easy. I was most impressed with the detail Bill has incorporated in these tracks. I wanted gentle "sag" with these tracks and so decided to glue the track in runs and assemble them in much the same way as link and length tracks. (Yes I know it defeats the purpose of having walking tracks but it wasn't like I was going to run this model around the carpet and make "vroom vroom" sounds!) I produced a jig for this purpose out of lengths of plastic bar stock and plastic card.

The overly thick kit door hinges may be compared to the scratch built replacements here.



Hauler's photo-etched sets added plenty of tiny but useful detail.



We can see Hauler's seat back springs and radio mounts here. It is a shame that most of this detail is hidden when the vehicle is assembled.

The lower hull of the AFV kit was assembled for the express purpose of attaching the road wheels so I could assemble the tracks. I must say this is an area in which the AFV Club kit shines very brightly indeed. The level of detail on these parts would put many a 1:35 scale kit to shame. When the lower hull was assembled, I pressed the road wheels in place and super glued the tracks in place with the track sag I was after. When I was happy with my assembly results, I removed the entire assembly off the lower hull. I now turned my attention to the pad height. I had purchased a "G-Tool" from a Japanese Mail order house a few years ago and it is basically a cordless tooth brush with a replaceable sanding head in place of a brush. I believe (if memory serves) that this idea was first brought up on IPMS Stockholm a few years ago and this is just a copy of that idea, never the less the idea works well and is a very gentle way (as it takes time) to sand parts. I reduced the height of these pads while watching TV one night.

#### CORRECTING THE INTERIOR

I next turned my attention to the hull interior and here is where the

AFV Club kit is a little hit and miss. There are parts in this kit's interior that are breathtaking while others are, in a word, thick. As discussed in my earlier review, this is mainly a result of buildability issues and is no way representative of the kit's accuracy. The main problems here are the under seat storage bin height, hull topside thickness and internal stowage wall thickness. I firstly glued the lower and upper hull together and sanded the outside joint smooth. Big mistake! What I should have done was left the joint as AFV Club had intended (with a little overlap) I remedied my mistake with a small plastic strip glued directly onto the hull and sanded to shape. I tackled the sidewall thickness with the aid of the G-Tool and sanded this back over a few nights while watching TV. This exercise removed all of the sidewall detail so replacing it with plastic card is the order of the day here. The next step is to scratch build the inner stowage containers as the kit examples are very thick and slightly inaccurate. I built these out of 10 thou plastic card making sure to incorporate the distinctive "L" profile on the top of the compartments themselves. These appear thick when viewed



The Notek light was borrowed from a Tamiya kit.



The track assemblies were painted separately from the rest of the model.

from above but when viewed from the side a truer picture is revealed. I cut off the excellent AFV Club side cushion moldings and added then to my scratch built items. I then reduced the height of the under seat stowage boxes by almost a third and replaced the tops with plastic card. All the finer details were then added to the interior from either the Hauler set (HLX 48277) or from scratch. At this point, I should mention the two Hauler photo-etched sets I have used in this build. As discussed I used set HLX48277 for the interior

and this set includes the internal stowage bins. Unfortunately these have been profiled for the kit without a reduction in sidewall thickness. These parts are also incorrect in shape (they have no "L" Profile) and are closed at the bottom on the lower portions of the bin itself. The other etched parts on this set are, however, very usable with the seat back springs, instrument cluster and the radio brackets being outstanding. The last step of the interior fit out included replacement of the overly thick hinge assemblies for the rear



The fire extinguisher adds a welcome splash of colour to the dark interior.



The springs in the seat back may still be seen when painted.





The body is almost ready for paint.



Additional storage was installed in the interior.



## “This little Hanomag has a slight sting to it but it is generally a very sweet kit.”

doors. I don't know what AFV Club were thinking of here but they are almost 1:35 scale in thickness. I scratch built some new items out of plastic rod bent into shape with aid of boiling water. The rear door was then attached and the interior painted.

The last step of the build process was to attach the various fittings like mudguards to the hull itself. The mudguards are very well done with the correct kink in the middle but are a little thick. This is very evident when viewing the guards from the front. I thinned these to the appropriate thickness from the lower side of the guard itself with the aid of the “G-Tool” and sandpaper. Most of the smaller detail fittings came from the Hauler photo etch sheet “HLX4878” and are really a joy

to behold. I have always liked the German Air Recognition Flags as they always add a bit of colour to a vehicle. I made the one on this vehicle by firstly mixing Milliput and then rolling it very thinly with the aid of plenty of baby powder and a rolling pin, and placing it on the unpainted upper body. I then painted it red and masked out a white circle and sprayed the circle white. I finally used a decal from the spares box for the swastika. The figures are modifications of the Gaso.Line Panzerschreck team with the heads from the spares box with the arms and legs from the ICM range of 1:48 scale figures.

### PAINTING AND WEATHERING

I always try to do something a little different when I paint, attempting a new approach or a different method. In hindsight, however, I may have been a little

too subtle with some aspects of my camouflage and weathering methods. With this model I tried something I very rarely do and that is and paint an undercoat of Tamiya XF-69 NATO Black. My reasoning behind this was to slowly add a panzer grey colour in stages to achieve the faded and dirty look I was after. The primer coat would also serve to black out all the areas of the model that would not normally be seen and cover the bare plastic or brass. I firstly sprayed the XF-69 mixed in a ratio of 70% thinner, 30% paint using a few passes to achieve a solid base coat. I then added the mud effect on the bottom of the hull and road wheels using a combination of Decoart Stucco (tinted with Tamiya

XF-52 Flat Earth) and Gesso (a bit like Stucco but thinner). I used ground dirt and tree roots with in this mix in a radial pattern on the lower hull and road wheels.

At this stage, I applied a thin coat of Tamiya XF-63 German Grey and Tamiya XF-18 Medium Blue in a 70/30-mix ratio, with more emphasis on the grey than the blue on the hull. A spray pattern was applied over the top half of the vehicle in a radial pattern. I then “rain streaked” the hull sides with straight XF-63 thinned in an 85% thinner and 15% paint to give the model a very subtle weathering and paint fade effect. I generally like to use this effect on solid color subjects as it breaks the up the finish of a single colour



The flag was made from thinly rolled Milliput, cut into shape and folded white still pliable. The various folds have been lined up to fit the grooves in the engine deck openings.



The colours were carefully painted.



Flags were frequently used as air identification markings.



The two basic camouflage colours await weathering.

The figures were modified from Gase.Lino's Panzerschreck set. Moulding is crisp.

Camouflage on the smock was painted with a fine brush.

Disco Diedrich...



subjects and makes them a little more interesting too look at. I then sprayed a green blend obtained by mixing Tamiya XF-58 with a little XF-59 in a random pattern on the entire vehicle. At first I was happy with the result, but on reflection, I think it was way too subtle.

The next step was to paint the tracks and lower hull. I have used a mix of XF-52 Flat Earth and XF-59 Desert Yellow on my model. I applied the Flat Earth on a 15% paint 65% thinners ratio in a number of passes to ensure the whole of the underside of the

hull and road wheels was covered. The last step was to apply small amounts of mud from the Tamiya "Mud Weathering Stick" with the aid of a tooth pick to the centre of each track link and a little on the back. I then hand painted the rubber portion of the road wheels and attached the tracks. PVA glue was applied on all points of contact to give a good solid bond. The entire lower hull was then given an oil wash with firstly Burnt Umber and then Lamp Black. On both occasions I have used Zippo lighter fluid as a mixing agent as it dries

more or less flat. The road wheels were then lightly dry brushed with a mix of Humbrol White and Wood Brown with a greater leaning toward white. When this was done, a very thin glaze of straight Tamiya XF-59 Desert Yellow in a mix of 10% paint 90% thinner was applied to the lower hull in slow and deliberate stages. This glaze can be controlled and is most effective for taking the hard edge off dry brushing. The last step was to go back to the original Tamiya XF-63 German Grey mixed in the same ratio as before and touch up

and streak into some of the brown applied previously to the lower hull. The last step of the weathering process was the chipping process and to be honest this is the feature I am most proud of on this model. My main aim here was to be subtle and have a scale effect. More often than not I have seen perfectly good models spoiled by chipping that stands out too much.

I sprayed the model with a 50 percent Vallejo Matt Varnish "520" and 50 percent tap water mix to produce a dead flat finish. ▶

The poses may look peculiar in isolation, but they have been carefully customised to their positions inside the half track.

Weathering has toned down the contrast between the Pantar Grey and Green camouflage colours.



Streaks, chips and dust are better defined.



The polished steel sections on the wheel rims were carefully painted with the tip of a fine brush.

AFV Club's 1:48 scale Sd.Kfz. 251/1 Ausf. C is generally very well detailed and straightforward to build.



WWII Productions tracks are a real asset, and a vast improvement over the kit's rubber band tracks.

**"In hindsight I may have been a little too subtle with some aspects of my camouflage and weathering methods."**

#### SELF CRITICISM

I often read build articles and often wonder if the modeller involved is happy with his results. For me, this project offered the chance to build a German 251 half track that I could add to my collection but I am not happy with my results. The model itself is fine and the build was pretty much pain free. The problem I have with this model is it is just so boring to look at! It lacks a

certain "wow" or "zing" factor. The paint finish could have been better. The green camouflage over the Panzer Grey is a major disappointment - it is just too subtle! I am satisfied with the scratching and chips and the flag on the bonnet but the figures are a little below par. I guess it all comes down to practice. The next build will be better.... with maybe a bit of foliage perhaps?

#### CONCLUSION

The AFV Club 1:48 scale Sd.Kfz. 251 is good, if not better, in terms of accuracy and buildability than most kits of this half track available in any scale today. The detail level on some parts of this kit is outstanding considering its small size. The kit has a few faults, the main one is being the tracks. But none of these flaws are earth shattering or overly hard to fix. Overall, this is a very sweet kit. ■



#### Modelspec

AFV Club 1:48 Sd.Kfz.251/1 Ausf.C Kit No. AF 48007

##### Paints used

Tamiya XF-63 German Grey, XF-69 NATO Black, XF-18 Medium Blue, XF-1 Black, XF-52 Flat Earth, XF-59 Desert Yellow, XF-58 Olive Green  
Humbrol Metal Coat "Z7004" Gun metal, Grey "Met 53", Matt White "34", Wood Brown "62"  
Vallejo Silver "848", Matt Varnish "520"

##### Weathering materials

Tamiya Weathering stick item "87081"  
Deco Art Light Earth Stucco "astof"  
Zippo Lighter Fluid  
Winsor and Newton Burnt Umber, Lamp Black

##### Tools Used

Woldron Sub-Miniature Punch and Die Set,  
Small Shop Brass Assid Roller set Wk Mc,  
Small Shop Hold and Fold, G-Tool

##### After Market

WW2 Production 1:48 251 Tracks  
Hauler XLX48277 251 Interior update  
Hauler XLX48278 251 Exterior update

##### References

SdKfz 251 Ground power Special  
SdKfz 251 Tank Power Vol 6 ISBN 83-7219-215-4  
SdKfz 251 Osprey New Vanguard 25  
SdKfz 251 in Action Squadron Signal R 2021  
Schutzenpanzer Rytton Publications ISBN 1930571291

✓ High level of detail; beautiful moulding quality; excellent decals.

✗ "Rubber band" tracks; some overly thick mouldings; inaccurate storage.

##### Available from

All good model shops Worldwide.

Rating ●●●●●●●●

1:48 scale is a handy size!

The flag provides stark contrast against the dark vehicle.





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# LIVING HISTORY AT TANKFEST 2009

**Darren Thompson**  
joins 10,000 visitors  
at The Tank Museum's  
annual celebration of  
all things tracked and  
armoured, Tankfest.



*Kicking up the dirt, the Scorpion converges at full speed.*



*Bottoms up! Warrior tip-tilting down the bank.*



*The business end of Challenger II. Not a view you want on the battlefield!*

*The AS 90 with its gun at full elevation, capable of dropping an extended range projectile up to 30km away!*



**T**he last weekend in June saw the Tank Museum, Bovington, hold it's first annual 'Tankfest' since receiving it's recent £16 million facelift.

The weather behaved itself, helping to draw in record crowds for the museum's most successful 'Tankfest' yet.

Over 10,000 visitors were treated to an awesome arena display, many of whom watched from the new, grassed embankment, that sweeps across the front of the museum's new main building.

The British Army began by putting several of its present-day frontline vehicles through their paces, including Scorpion, Warrior and the AS 90 self-propelled artillery gun. They rounded off their display with the mighty Trojan engineer vehicle and the Challenger II MBT. It never ceases to amaze me how 70 plus tonnes of armoured vehicle can accelerate and corner at such breathtaking speed, all the while keeping it's main gun level and it's turret spinning to seek out new targets, it really is a sight to behold!

Another first for the weekend was the unveiling of the Sdkfz Foundation's newly restored Stug III. They certainly have done a beautiful job in getting this vehicle back to running condition, especially when you consider that it spent over 50 years in a sunken freighter ship at the bottom of the Black Sea!

It accompanied the Museum's own Tiger I and Panzer III around the arena and it's engine didn't miss a beat, which is more than can be said of my heart, when its commander decided to fire a blank round directly at us photographers!

The other highlight of the Arena display was Bob Grundy's WWI replica of the German ATV tank. It rumbled around, painfully but realistically slowly, with a full compliment of German infantry following behind. It really is an amazing piece of full-size modelling, with the engine and drivetrain taken from a Fordson County Crawler, the entire hull is recreated from resin-coated marine plywood, with thousands of home-pressed rivets screwed into place.

Elsewhere around the museum grounds were the 'living history encampments', these are best described as full size dioramas, with the uniformed re-enactors going about their daily military life, whether it be an assault on a machine-gun position, or stripping and cleaning a rifle, each display was meticulous down to the last detail.

I'm very lucky to live just an hour's drive from the Tank Museum, however, there aren't many places in the world that such an important collection of military vehicles can be seen in one place, let alone running. Add to this the 'Living History' displays, a wealth of excellent book, model and military trade stands and the museum's new 'Tank Story' exhibition, it really is well worth making an effort to get here and see the 'Tankfest'. I'll certainly be here again next year. ■



Arguably the Museum's biggest attraction, the Tiger 1, leads the Sdkfz. 250 and Sdkfz. 251 halftracks across the arena.



The Sdkfz. Collection's newly restored StuG III, the smoke from it's last ear-splitting roars just beginning to clear.



Pleasing the crowds, what "Tankfest" is all about.

A beautifully restored M5 "Star" light tank



The museum's "Kettentraktor" has also just undergone the full restoration treatment, and very fine it looks too.

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The Tank Museum's very precious Rolls Royce 1920 pattern Mark I, spotted only by the WWII Tommy's in the back!



The ATV replica looking every bit the lumbering WWI giant, leads its infantry into battle.



The Infantry Tank Mk.I, or Matilda I. Claustraphobics need not apply!



The M4 Sherman 'Easy Eight' Sherman, always a popular performer.



The 'Easy Eight's' Commander, salutes the crowd.



The unmistakable silhouette of the T34/85.



It's not often you get this close to an MG 42 machine gun.



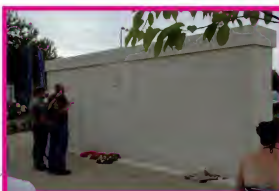
A lovely M20 Armored Utility Car, with reliable crew.



A very nice Citroen truck, converted into a German Raso vehicle.



Best seat in the house?



Situated opposite the new entrance is this poignant memorial, to commemorate those members of the Household Cavalry and the Royal Armoured Corps, who made the ultimate sacrifice.



The ever-popular Panzer III.



The newly built 'Tank Story' hall, illustrates the evolution of the tank, from 'Little Willie' to the present day and beyond.

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# HANOMAGIC

The Editor builds Tamiya's brand new 1:48 scale late-version Sd.Kfz. 251 Ausf. D half-track and compares it to the recent AFV Club kit in the same scale.



**L**uke Pitt had already finished his 1:48 scale AFV Club Sd.Kfz. 251 Ausf. C when Tamiya's brand new Ausf. D kit arrived for review recently. The kit looked almost irresistible in the box and promised to be a fast build, so I decided it would be interesting to build this newest addition to the growing 1:48 scale plastic fraternity.

In fact, this little Hanomag went together so quickly that it almost seemed like magic.

#### ON THE SPRUES

The Sd.Kfz. 251 half-track was an important element of the Blitzkrieg concept of mechanised warfare. This vehicle was originally designed to carry troops and tow weapons across rugged terrain. Over the

course of the war, the versatility of the 251's design was proven as it was used to mount various weapons and ordnance – including the long-barrelled 7.5cm Pak 40 anti-tank gun.

The Ausf. D was the later variant of this Hanomag half-track, introduced into production during 1943. It may easily be distinguished by its simpler lines and flat sides

with integrated toolboxes.

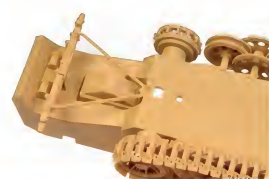
This release is the basic troop-carrier version of the Sd.Kfz. 251. Tamiya's 1:48 scale Sd.Kfz.

251/1 Ausf. D comprises 150 parts in Tamiya's familiar tan-coloured plastic, with a further 88 in medium grey.

The upper and lower bodies are supplied as one part each. There are no complex multi-part



Tamiya's running gear is well detailed, but not quite as deliciously rendered as AFV Club's.



Front suspension and lower engine / chassis detail is basic.



The link and length tracks are a joy to assemble.



assemblies here. There is no metal chassis either. The integrated tool lockers are supplied for each side with the doors moulded shut. Small locks are represented as raised mouldings on the locker doors.

The two rear doors are moulded together as a single piece, with the outside hinges on their edges. This will make the job of displaying the doors open a bit tricky. The inside of the doors have four faint ejector pin marks that should be dealt with prior to assembly.

The driver's and co-driver's visors are also moulded shut.

The tracks are presented as link and length. In fact, the shortest section is two links, so I suppose technically speaking they are actually length and length tracks. Each track run is made up

from only 13 parts. The

track pads are moulded

integrally with the tracks.

The pads are not overly thick, suggesting tracks that have seen some wear. We don't get the customary poly caps for the front wheels with this kit. Each two-piece plastic front wheel is simply glued to the fixed front axle in the straight-ahead position, while the road wheels are attached to fixed suspension arms on the side of the lower hull.

Interior detail includes four bench seats, driver's and co-driver's seats, three separate control arms and non-slip pattern moulded to the floor. Stowage bins, a fire extinguisher and racks also help to fit out this busy area. Tamiya supplies tools and two MG 42 machine guns for the exterior of the vehicle. Fine loose ammunition belts are provided for the guns - very impressive in this compact scale.

A good selection of extra parts is also offered as optional stowage. These include spare road wheels and track lengths, jerry cans, grenade and ammunition cases (complete with moulded woodgrain), two buckets and a Panzerschreck anti-tank rocket launcher. Bear in mind that you will need to add some credible method of attaching these exterior accessories in order to avoid the amazing "levitating stowage syndrome" frequently seen on models.

Two figures are also included - a Commander and a Gunner. These are both wearing bulky winter uniforms. Moulding and detail is excellent, and the relaxed poses will offer flexibility for your chosen scene. Good luck painting the raindrop pattern camouflage in this scale though!

The grey sprue contains a stack of infantry equipment including covered and uncovered helmets, bread bags, water bottles, trenching tools, MG 34s, (another) MG 42, Kar 98K rifles, MP 40 machine pistols, MP 44 assault rifles, a Panzerfaust, ammo boxes and more. These will be very helpful to scatter inside your Hanomag.

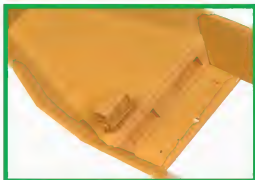
Markings are provided for three vehicles. The first is in winter white wash, in service with an unknown unit on the Eastern Front in Winter 1943. The second option features green and brown streaky mottles over Dark Yellow, and was in service with 5 Panzer Division "Wiking" in Warsaw during August 1944. The final option is also finished in three-colour camouflage, this time based in Normandy during 1944.

The small decal sheet includes some very nicely printed dials and details for the instrument panel. ▶

The interior floor, benches, front seats and levers may be assembled prior to installing them in the body.



Internal stowage is correct for the Aus C D variant. The rear doors are supplied as a single part with hinges moulded in place, making them difficult to pose open.

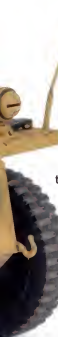
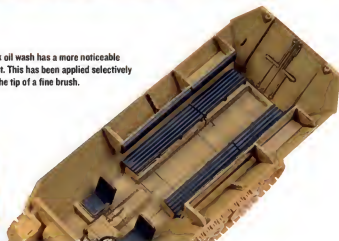


The radio is installed on the underside of the upper body.

Mig Productions' Tan Filter for Tritonal Finish has been brushed over all the interior surfaces. The effect is subtle.



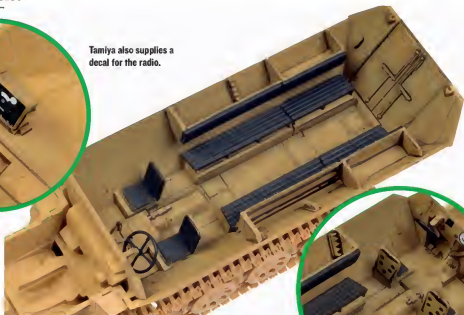
A dark oil wash has a more noticeable impact. This has been applied selectively with the tip of a fine brush.



The base paint colour plus some airbrushed streaking has been applied to the interior before the upper body is glued in place.



The instruments are provided as a decal. "Chipping" has been added to the interior walls and floor with a brown artist's pencil.



Tamiya also supplies a decal for the radio.

The interior takes shape. The seats are painted with a 50/50 mix of Tamiya XF-1 Flat Black and XF-64 Red Brown.



Test fitting revealed no likely gaps or problems.



The tiny towing shackle was broken off during handling. The part was drilled out and reinforced with fine copper wire.



The mounting point at the rear of the body was also drilled out to accept the new copper pin.

# ◀ JUST SHAKE THE BOX...

You might have to do a little more than just shake the box, but Tamiya's 1:48 scale Sd.Kfz. 251 Ausf. D certainly presents no obstacles or complicated assemblies for the modeller. The flip side of this simple construction sequence is that doors and hatches are fixed in the closed positions, while underside detail is very basic.

However, if you are the sort of modeller who likes to see fast results, you are going to love this kit.

The lower hull is assembled in minutes due to the fixed suspension arms and simple slab of a rear door. The road wheels and drive sprockets are similarly straightforward. No poly caps here

~ just cement the wheels straight to the suspensions arms, while the sprockets are a tight press fit. This is handy, as it allows for minor adjustment when fitting the link and length tracks.

Those tracks are supplied in just 13 sections each - seven sections of two links and the rest in longer lengths. I found that I needed to bend the front or back link on Parts A20 to achieve a constant contour with Parts 22 as they started their tight journey around the drive sprockets and rear road wheels, but this could hardly be considered a challenging issue. After the track parts had been removed from the sprues, assembly of each run took less than 15 minutes.

We now turn our attention inside the vehicle. The bench seats and driver's controls were glued to the floor, while the backrests and other details were attached to the sidewalls. It is easiest to paint the interior at this stage, as the upper hull will interfere with detail painting. First, the entire interior was painted with my custom German Dark Yellow mix. This comprises 40% XF-59 Desert Yellow, 40% Tamiya XF-60 Dark Yellow and 20% XF-2 Flat White. An extra 15% of white was added to the mix for a fading colour, which was sprayed in fine streaks, spots and mottles at random.

The outlines of the bench seats and backrests were painted with a fine brush in a dark mix of Tamiya

XF-1 Flat Black and XF-64 Red Brown of equal proportions. The same colour was then loaded into my Aztek A470 airbrush and the spaces between the brush-painted outline were coloured in.

The instrument panel and radio face are supplied as decals. These may look a little cartoonish at first glance, but the configuration seems to be accurate and the extra visibility will be helpful when they are hidden deep in the recesses of the driver's compartment. I quite like them.

The interior parts were now treated first to a brush-coat of Mig Productions' Tan Filter for Tritonal Finish, followed by a selected pin wash of dark thinned oil paint. This oil wash was applied ▶

The balance of construction proceeds apace.



A few hairline gaps and join seams received a smear of Tamiya Surfacer.



The completed model was prepared for paint by masking off the interior with masking tape and tissue paper.



First the tracks were painted Tamiya XF-1 Flat Black.



Camouflage colours were sourced from Tamiya's range of acrylic paints.



The base colour was the German Dark Yellow mix.



Around 15% Flat White was added to the Dark Yellow mix as a fading shade applied in streaks, spots and mottles.



Tamiya XF-67 was mixed with the Dark Yellow mix in equal proportions to obtain the German Dark Green colour. This was built up slowly and irregularly using a Testor Aetex airbrush.



The regular effect looks exaggerated now, but later weathering will tame the impact.



The profile to 'Tanzers in the Backlog' indicated restrained use of Red Brown in addition to the Dark Green camouflage. This was a 50/50 mix of Tamiya XF-64 Red Brown and the Dark Yellow mix.



The Author did not like the effect of the Red Brown, so it was oversprayed and mostly obliterated.



Tamiya TS-13 Clear was used for the gloss coat prior to the application of decals.



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The "III" digits were sourced from Tamiya German Decal Sheet D, Item No. 66013. According to Tamiya, these are 1:35 scale but they look fine on this model.



Industrial light filaments were adapted for use as width indicator poles.



Light coloured "chipping" was applied to the Dark Green areas of the paintwork, with dark chips on the Dark Yellow.



Gunze Flat Clear was sprayed over the entire model for an appropriately lustreless finish.

carefully to panel lines and other structural features with the point of a fine brush. When dry, the final weathering touch for the interior was some subtle "micro-chipping" with a brown artist's pencil.

The main assemblies were now brought together. There is some margin for error when fitting the side stowage bins (Parts B9 and B10), so take your time and test fit before committing to cement.

I managed to hack an untidy chunk out of the side of one of the delicate width indicators when removing the residual sprue attachment. Shortly afterwards, I lost the other pole to the ever ravenous carpet monster. I actually bought an AFV Club kit partly to raid the poles from the box, but in the end I left the sprues of the Ausf. C intact and made my own replacements from an industrial light filament cut to side and bent to shape. Bill Wiseman (currently of WWII Productions) gave me a container

of these filaments around 15 years ago, and I have found dozens of interesting ways to use them.

#### DRESSING FOR NORMANDY

I recently finished Tamiya's 1:35 scale Citroën in a soft, indistinct three-color German camouflage (MMI Issue 42, October 2009), so I thought I should do something a little different this time. After

with streaks and mottles in paler shades of the original colours. This irregular finish looks a little over the top at this stage but later weathering will tone down the effect. For the moment, we should take heed of the words of that great philosopher George Michael - you gotta have faith!

As it turned out, I did not really like the look of the finish with the

A pin wash was mixed from Winsor and Newton Lamp Black and Raw Umber oil paints. This was applied to structural details on the glossy surface, including the wheels, locker panels, padlocks and more.

Decals were sourced from a 1996 vintage after market decal sheet from Tamiya, "German Decal Sheet Set D". These are ostensibly 1:35 scale, but the white outlined red digits looked about the right size for my 1:48 scale Hanomag.

Tiny chips were added to the exterior paintwork. Dark brown was painted onto the Panzer Yellow sections, while Buff was used on the Dark Green. Subtlety is the key here - less is definitely better. The paint chipping was applied with the extreme tip of a fine brush.

With the model nearly complete I sprayed several thin coats of Gunze Flat Clear. This instantly transformed the finish. Chipping was then added to the edges of the vehicle, first with a brown artist's pencil and then, with more restraint, using a 2B pencil. The same pencil was rubbed over the black-painted MG 42 machine

guns to suggest a metallic finish. ■

**"If you are the sort of modeller who likes to see fast results, you are going to love this kit."**

casting around I saw a nice scheme in The Oliver Publishing Group's new book, "Panzers in the Bocage" with large areas of Dark Green over Dark Yellow.

The camouflage colours were all mixed from Tamiya acrylics and applied with the airbrush. The basic colours received fading coats,

Red Brown, so I overpainted most of this colour leaving just a hint remaining. The camouflaged model was brushed with two thin overall coats of Tan Filter, which started the blending process.

The model was prepared for decals with two fine coats of Tamiya TS-13 Clear straight from the spray can. I have used this product a couple of times recently, and I am impressed with its hard, glossy finish and fast drying time. Having a lacquer base, you can use either oil or acrylic washes over it too. You do have to watch out for runs though, making it important to spray only thin coats on your model.

Tamiya's kit is simple, but it conveys the lines of the hard working Hanomag.



Most of the pigment was scrubbed off the wheels and running gear, leaving the impression of ingrained dirt.

Kit decals were used for the balkenkreuz and the number plates.



Mig Pigments provide suitable weathering for the wheels and running gear.



The forward MG 42 machine gun includes a very fine ammunition belt.



Tools were painted with a mixture of acrylic Desert Yellow and a touch of Clear Orange. The rust on the muffler is a brushed application of Mig's Track Colour pigment mixed with water.

## A Rose by Any Other Brand?

So here we are at the end of 2009 with not one but two 1:48 scale Sd.Kfz. 251 kits.

It is interesting to compare the kits. Having finished his AFV Club 251, Luke Pitt was less than complimentary when he first saw the Tamiya offering.

There is no doubt that in terms of finesse and parts count, AFV Club seems to have the edge. The ability to pose the separate visors and rear doors open is useful too. Even the engine hatches are separate, leaving the door open for an after-market engine bay. However, the under-bench stowage is incorrect, and only rubber band tracks are supplied.

On the other hand, Tamiya's link and length tracks look much nicer, and internal stowage is correct. The inclusion of two figures and a pile of optional ordnance also transforms the kit into an instant vignette. And of course, it is a dream to build.

If you are a die-hard detail fiend, you might prefer the AFV Club Hanomag, while the fast build brigade will fall for Tamiya's kit.

At the end of the day though, probably the most important decision factor is what variant you want to build. Both kits have their merits, and shortcomings are relatively minor. If you want to build an early 251, buy AFV Club. A late version? Buy Tamiya.

Either way, these are a couple of sweet smelling roses. ■



AFV Club's Aust. C by Luke Pitt (left) and Tamiya's Aust. D.

## Modelspec

Tamiya 1:35 Mil.SP.W.Sd.Kfz. 250/1 Aust. D.  
Kit No. 32564

### Materials

Tamiya Extra Thin Liquid Cement,  
Revell Contacta Cement,  
Industrial light filament (for width indicator poles).

### Decals

Tamiya German Decal Sheet D, Item No. 66613.

### Paints used

Tamiya Acrylics: XF-1 Flat Black, XF-2 White; XF-2 Flat White, XF-55 Deck Tan, XF-59 Desert Yellow, XF-63 Panzer Grey, XF-64 Red Brown, XF-67 NATO Green.  
Vallejo Acrylics: Flat White, Silver.  
Mig Productions Tan Filter for German Tritonal Camo.  
Mig Productions Pigments (various).  
Tamiya Weathering Master A pigments.

### References

Under the Gun 1 - Panzers in the Bocage  
by Karl Berne. ISBN 978-0-9006593-0-6.  
Published by The Diver Publishing Group.  
Schutzpanzer  
by Bruce Culver and Uwe Feist. 1996 Ryton Publishing

✓ Excellent surface detail and texture; precise link and length tracks; fast build; perfect fit; includes two figures and stacks of stowage and ordnance; plenty of potential for a wide variety of finishes.

✗ Fixed hatches and visors; flat moulded-on stowage padlocks.

### Available from

Thanks to Tamiya for the sample.  
Available from good hobby shops worldwide.

Rating ●●●●●●●●

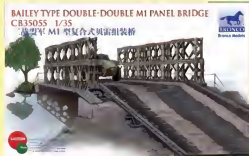
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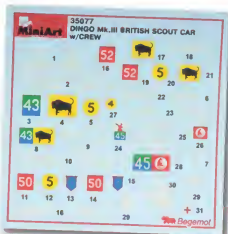
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Markings are provided for four vehicles.

# MY BABY'S GOT A DINGO

Al Bowie picks up MiniArt's latest incarnation of the Dingo Scout Car in 1:35 scale.

**T**he Daimler Dingo was a WWII British Scout Car that served throughout the war and long

afterwards. Originally intended for scouting, the Dingo was eventually used in a variety of roles including command and liaison as well as traditional reconnaissance.

More than 6,626 Dingos were produced and they served on all fronts in Reconnaissance, HQ and Armoured Formations. Not since Tamiya's early 1970s example have we seen an injection moulded plastic kit of the Dingo in 1:35 scale, a situation now corrected by MiniArt who has released three kits with more to follow. Following on from the Mk.Ib and a Mk.II in German markings, this kit represents a later war Mk.III although there is some debate as to whether the actual production Mk.III was used during WWII.

MiniArt has really excelled with the Dingo. This is a superb kit of the compact scout car packed with detail and, unusually for a kit these days, a suitable animated and well sculpted crew. The kit covers a vehicle of the 1944/45 period and offers four marking options for North West Europe based vehicles all wearing SCC 15 schemes with one in the famed "Mickey Mouse" disruptive scheme.

The level of detail is

outstanding but this comes at the cost of complexity. An indication is the 262 parts that make up the kit and the large photo-etched fret included in the box. This will deliver a hugely rewarding and detailed finished product.

Construction starts with a multi-part lower hull and then follows a sensible approach of building sub assemblies that come together to create the pleasantly cluttered fighting compartment with its distinctive multifaceted walls. The amount of nooks and crannies present dictates that painting best be undertaken before assembly and it would be safe to say that the same goes for weathering. Care must be taken with the construction of the superbly detailed suspension units which are every bit as complex as the real thing. Steering can be positioned but the delicacy of parts dictates that it is not something to be played with. MiniArt provides easy to follow instructions with clear exploded diagrams and multilingual symbols that even I could follow.

The internal detail is pretty complete including a photo-etched protective grill for the superb No 19 radio set, which itself is made up of six parts. Two Lee Enfield No. 4 Mk. 1 rifles are supplied

along with a Bren Gun moulded in its cradle. Small POW cans make up additional stowage. The rendition of the antenna mounts and the distinctive guard is the best I have seen in this scale.

Rounding out the kit are two figures representing the Driver and Commander dressed in denim tank coveralls so commonly seen in the early North Western Europe campaign. Animation is natural and fitting however, unlike the vehicle, the figures have a bit of flash surrounding the parts. Nevertheless the detail is very good and crisply defined.

Markings are provided for four vehicles of 1. 11AD 2. Guards Armoured Prince Edward Light Horse 3. 11 AD 3 RTR, and 4. 8th Kings Royal Irish Hussars. I have severe doubts about options 1 and 2 as the Number 43 on a Green over Blue (Armoured Recce) doesn't appear in any of my references and if I am not mistaken option 2 is a Canadian unit of 17 Armoured Regiment that saw action in Italy and Holland.

In summary, this is an excellent kit that compares well to my references and is packed with detail. It will be an involved build but the results will really stand out in such a small subject. A state of the art Dingo has long been overdue as a subject and MiniArt should be congratulated for this outstanding kit. I do have some reservations about a few of the marking options but these do not detract from an otherwise outstanding kit.

Highly Recommended. ■

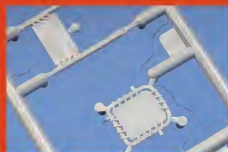
Available in the UK from  
Creative Models  
[www.creativemodels.co.uk](http://www.creativemodels.co.uk)



Comprehensive interior detailing is included.



Moulding quality is first-rate.



Stitching on the seats is cleverly done.



The Bren Gun and Lee Enfield rifles are equally nice.



The vehicle parts are admirably free of flash.



The inside halves of the wheel rims are separate parts.



Figures are well detailed, but the parts suffer from ragged flash.



The wheels are injection moulded plastic, not vinyl, which will please many modellers (myself included)



The supplied photo-etched fret offers a wealth of detail.



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# Figures - A round-up of the latest figure sets on release...



## TRISTAR

### 1:35 WWII BRITISH PARATROOPER WITH WELBIKES • ITEM NO. 041

The diminutive Welbike was a motor scooter developed by the Excelsior Motor Company in response to a 1943 requirement for a vehicle that could be dropped by parachute. At this time there were no British aircraft capable of carrying a jeep or other motorised transport. The Welbike weighed just 75 lbs and could be folded to fit inside a compact drop container, but it was uncomfortable to ride and it could only carry a single Paratrooper. Despite its limitations, the Welbike was used during the D-Day invasion and Operation Market Garden. Its two-stroke, two cylinder 98cc engine delivered a range of 90 miles. Beats walking in full battle gear! I suppose Tristar has packaged three WWII Paratrooper figures in the same box as two Welbikes. Three sprues of tan coloured plastic are supplemented by a small photo-etched fret and decals. Moulding quality is excellent, with no ejector pin marks or other imperfections apparent. There is a tiny bit of fine flash that will need to be cleaned up with the point of a sharp hobby blade, but nothing too dramatic.

The Welbikes are presented on two identical sprues, each complete with parts for a folded or deployed scooter plus the drop container. The photo-etched fret provides finely detailed spokes for the wheels, drive chains and latches for the drop container. The bikes are made up from 38 plastic pieces each, plus photo-etch.

The two figures are supplied on a separate sprue. They are beautifully detailed. Arms, legs and torsos are all separate. The heads are split into front and back halves, with the join along the rear line of their helmet chin straps – nice touch. Four helmets are supplied – two with camouflage netting and two without, as are two .303 rifles. One of the figures is convertible. He may be built riding the bike or standing alongside steadying his scooter.

Markings for the containers, the bikes and the figures are included on the small but perfectly printed decal sheet.

I particularly like the Parachute Regiment wings and rank insignia.

Curiously, the name of the scooter seems to be mis-spelt on the box as "Welbike". Perhaps this is a homage to Lawrence Welk, the big band leader of the 1940s.

Tristar's 1:35 scale Welbikes and Paratroopers is a great little set that should fire the imaginations of modellers. There is plenty of potential to use this set as a standalone vignette, or in combination with a vehicle for a larger diorama. Now all we need is an injection moulded 1:35 scale Light Tank Mk.VII Tetrach!

Highly Recommended

Thanks to Tristar for the sample [www.tristar-model.com](http://www.tristar-model.com)

Brett Green

## ZVEZDA

### 1:35 "VYMPEL" RUSSIAN ANTI TERRORIST UNIT ITEM NO. 3598

There is not that much information available on this unit, although I can tell you that it was formed by the KGB in 1981 to carry out special operations and create havoc at the rear of enemy forces. Today, its key role is Counter Terrorism operations.

This set contains six figures, all well moulded in light grey plastic with a total of 66 parts and a small sprue of clear with five parts. The clear parts are face shields and goggles.

If you are a figure modeller who does not like to paint faces, this might be the set for you as most of the head is obscured by the helmet, the shield and baladavas. The instructions are clearly drawn. To assist with colors, the back of the box has photos of the built and painted figures.

The figures are all presented to a high standard. I think that they do look a little like gamers figures, but that will not stop me from painting them up in the near future. Well done Zvezda.

Recommended.

Thanks to J.B. Wholesalers for the sample  
[www.jbwholesalers.com.au](http://www.jbwholesalers.com.au)  
Andrew Judson



## AC MODELS

### 1:35 KIWIS/COMMONWEALTH BREWING A CUPPA, ITALY • ITEM NO. ACM35001

This is the first 1/35 scale set from AC Models, and it is a great first effort. It depicts three NZ/Commonwealth Tankers brewing up in a quiet time, something all soldiers like to do when they can. Inside the box are three complete figures, one standing, one crouching, and another figure kneeling, just needing an arm to be glued in place. Two separate hands are also included, one holding a cup, plus two cups, a kettle, burner and a makeshift stove.

The sculpting is very well done. My only gripe is that the heads are cast onto the bodies. In my opinion, separate would have been better, though this is a very minor issue. The faces look nice, and the uniforms are what I like the most, being big, blousy and baggy giving these guys some real character. AC Models' debut 1/35 scale offering is a great set, one you could use as a vignette or as parts of a small diorama with a Sherman. Highly Recommended

Thanks to Andy Cairns of AC Models for the sample.

Andrew Judson





**"A diorama is like a time machine. It fills the gap between picture and a film. It is like a static documentary."**



# THE LONGEST DAY

## PART THREE – HIT THE BEACH!

Jose Brito creates the beach and adds all the elements to complete his ambitious D-Day landing diorama.

**T**he base would be a critical element of the diorama. I used a mix of Robbialac Aquaplast, acrylic paint, fine sand and water to represent the beach. Robbialac Aquaplast is a filler used in civil construction and is water based so it is very easy to work with. Once all these materials are mixed, they look like chocolate mousse and can be applied with the help of a medium-sized flat brush.

When it is dry the surface texture looks very realistic. It also

dries rock hard.

I repeated the same process for the sea, but this time I did not add the fine sand.

### SETTING THE SCENE

Once the LCPV was glued in place I started applying the mix around it using a small spatula. To add symbolism to the scene I added real sand from Omaha Beach that I collected when I visited the area back in 2004. It is nice to realise that my scene carries actual sand from Omaha Beach.

The defensive obstacles came from several sources. The wooden poles are scratch built, while the Hedgehog

Anti-Tank obstacle came from Italeri. This had to be detailed with concrete bases and some metal parts. The Teller mines on the top of the poles are in resin. One of the poles was fitted with the tip of a needle to represent the metallic pointers that intended to rip apart the bottom of the landing craft.

The wooden defensive obstacles were airbrushed with Tamiya

The base was coated with a mixture of Robbialac Aquaplast, acrylic paint, fine sand and water.



XF-59 Desert Yellow and then received a wash with Winsor & Newton 35 Raw Umber to highlight the woodgrain. The Hedgehog Anti Tank obstacle was primed with Tamiya XF-10 Flat Brown and then treated with oils and MIG pigments. In this case the oils were the Winsor & Newton 2 Burnt Sienna and Winsor & Newton 35



Water comes first...



...to which the Aquaplast is added.



Acrylic paint is squeezed straight into the container. This will deliver a sandy colour to the mix.



Fine sand was sifted into the container.





It is important to mix the ingredients thoroughly.



Genuine Omaha Beach sand was also added to the mix, a relic of the original historic scene.



The "sand" mixture is brushed roughly onto the base.

Raw Umber. The pigments were PO31 Vietnam Earth and P230 Old Rust. The pigments were mixed with water and Talens Amsterdam Acrylic Medium Matt 117. I wanted a very weathered and rusted look and these products are ideal for this finish. I made 3 holes for the tank trap. Those items are really heavy and sunk deep into the beach sand.

Five different Tamiya colours were used to paint the sea. The varied shades helped lend a more realistic finish. The first paint to be used was Tamiya XF-17 Sea Blue, then Tamiya XF-50 Field

Blue, Tamiya XF-18 Medium Blue, Tamiya X-3 Royal Blue (only small very diluted drops) and Tamiya XF-2 Flat White. This last color was only applied over the top of the waves. For that process I use always my Aztek 470 airbrush with tan colour nozzle, intended for detail and small areas paint.

#### THE WET LOOK

Once the basic colours were in place it was time to add the wet look. I first applied a coat of Vallejo Acrylics Still Water 26230. Still Water from Vallejo is a wonderful product. It is a very

clear resin that looks like real water. I just dropped the product in place. If applied over a flat surface it can be peeled off and worked in many ways.

For the waves and more agitated waters I used Vallejo's Acrylics Water Effects 26201. Once again, this is water based and presented in a white paste. It is totally transparent when dry, and is perfect for agitated waters. A company named La Pajarita offers an alternative product, which seems to be identical Vallejo's.

The foam over the waves and near the beach sand was created

using Deluxe Materials Scenic Snowflakes applied with their Scenic Bond. The result is a very realistic and natural looking sea. I applied some of these products near the soldiers. The idea is to blend the figures to the sea and add natural movement.

The figures' clothes had to look wet too, so I applied Winsor & Newton 35 Raw Umber, mainly on the trousers. The blood on the wounded figures is a mix of Winsor & Newton 6 Cadmium Red Deep Hue, Winsor & Newton 25 Lamp Black and Winsor & Newton 35 Raw Umber. They were applied



The steel tank trap is from Traleri. Details have been added from scrap plastic and metal.



Tamiya XF-10 Flat Brown offers a nice rusty base color.



Three deep footings are cut into the groundwork for the tank trap.



A battery of painting and weathering products are broken out to finish the tank trap.



The obstacle now looks suitably weatherbeaten. It is ready to install.



The LCPV is test-fitted to the scene.



The same basic ingredients that were used for the beach were also employed for the water, minus the sand.



A Teller mine is attached to the end of one of the beach obstacles.



Life preservers will be important on this day.



The sea mixture, ready to apply to the base.



The water mixture is trowelled onto the base around the landing craft.



The scene is taking shape.



Five different colours are employed for the sea.



The first paint to be used was Tamiya XF-17 Sea Blue



...followed by Tamiya XF-50 Field Blue.



...Tamiya XF-18 Medium Blue and X-3 Royal Blue in very small diluted drops.



...and finally Tamiya XF-2 Flat White



...the Flat White was only applied over the top of the waves using a Tester Aztek A470 airbrush.

like a wash and mixed with Winsor & Newton Sansodor (low odour solvent).

I did not want my diorama to look like a B Grade horror movie so body parts and gore were not strewn over the scene.

To add interest and movement I added some splashes from bullets hitting the water. I heated clear plastic sprue and cut them into

small sections of different lengths. They were then secured on the surface of the sea using contact glue. Vallejo Water Effects 26201 were added to the surrounding areas to blend the splashes in for a more convincing look. In my opinion these small details bring the model to life and add an extra touch of realism.

## CONCLUSION

I always wanted to make a D-Day Omaha Beach diorama. I know that it is not easy to represent the chaos that must have reigned on that beach on 6 June 1944, but I wanted to make my homage to the men who fought and died that day. Also, as a modeller I need to leave a legacy to the next generation. If they understand their past,

they can make a better future. A diorama is like a time machine. It fills the gap between picture and a film. It is like a static documentary. The modeller is like a storyteller.

I want to dedicate this diorama to my father, mother and wife Ana. They went with me to Normandy in 2004 and it was a remarkable experience. Thank you all. ■



Clear styrene sprue was stretched by heating for yet another water effect. Short lengths of the stretched sprue were cut, then glued to the water to represent splashes from bullets.





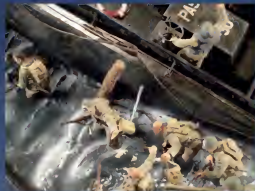
"Still Water" is squeezed onto a clean flat surface...



...and lifted after thoroughly setting...



...then cut to size and shape...



...before being glued to the drain on the landing craft.



Vallejo's Water Effects is a versatile product.



Here, Water Effects has been used to enhance the waves and agitated water.

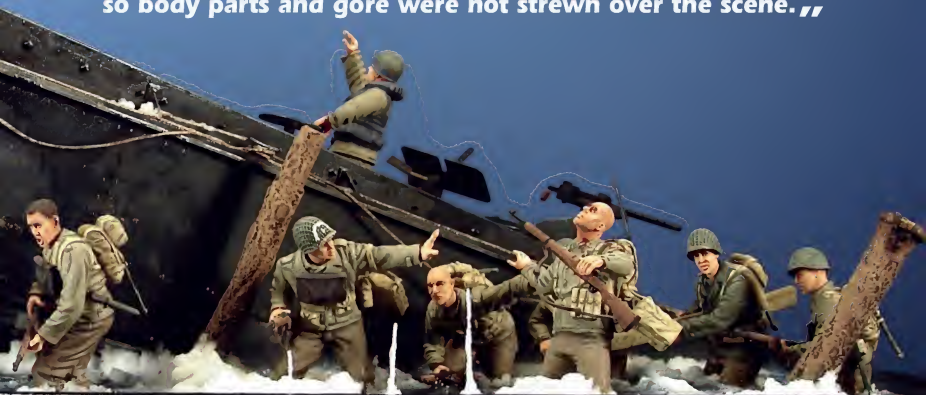




The figures have been added here, blended in with the aid of Winsor and Newton oil paints.



**"I did not want my diorama to look like a B Grade horror movie so body parts and gore were not strewn over the scene."**



## Modelspec

The Longest Day

### Models and Figure Parts

1/35 Italeri, LCPV Landing Craft, Vehicle Personnel, (6441)  
1/35 Dragon, US 29th Infantry Division, Omaha Beach D-Day 1944, (6271)  
1/35 Dragon, US Army Support Weapon Teams, (6198)  
1/35 Master Box, 0-Day June 6th 1944, (M83520)  
1/35 Master Box, US Infantry July 1944, (M83521)  
1/35 Tamiya, US Army Assault Infantry Set, (35192)  
1/35 Italeri, US Rangers Normandy 1944, (344)  
1/35 Italeri, Barricades, (401)  
1/35 Hornet heads sets (HH01, HH04 (x2), HH01, HH09, HH10 and HH09)  
Small items from the spare parts box

### Materials used

Hood glue, Plastic glue, Contact glue, Heat isolation foam, Wood base, Injected plastic, Plastic card, Metal parts, Plus Model Lead wire 0.2mm, Fine sand.

### References

Armes Militaires Magazine, Hors-Serie N° 57, Normandie 6 Juin 1944 Omaha La Sangle, Special relief sur le terrain, Histoire & Collections - Paris, ISBN: 0753-1077  
Spearheading D-Day, American Special Units in Normandy, Histoire & Collections - Paris, Jonathan Gagne, ISBN: 2 908 182 793  
US Rangers "Leading the Way" 12, Spearhead, Ian Allan Publishing, Ian Westwell, ISBN: 0 7110 2978 4  
1st Infantry Division "Big Red One" 6, Spearhead, Ian Allan Publishing, Ian Westwell, ISBN: 0 7110 2923 7  
Robert Capa, D-Day, Édition Point de vue, ISBN: 2 9516020 7 3  
O Dia Mais Longo (The Longest Day), Bertrand, Cormelius Ryan (1959 2nd edition)  
Several internet sites and history and modelling magazines

☒ LCVP kit and figures: The LCVP from Italeri is a very fine kit. The figures are also great and can be very improved with the resin heads from Hornet.

☒ LCVP kit and figures: Nothing worth mentioning!

**Anthony Sheedy** delves into the history of a Vietnam War V100, and builds the new 1:35 scale Hobby Boss kit.



# ROAD RATS

**T**he V100 series of vehicles was developed in the early 1960s by the Terra-Space division of the Cadillac Gage company. The first prototype, code named 'Commando', emerged in 1963, and the production variants entered service in 1964. Although the all-wheel drive Commando could carry 12, it generally only had a crew consisting of a driver and commander. This is due to the vehicle mainly being used by the US Military Police for road patrols, convoy escort and base defence duties.

The V100 is powered by a petrol 360 cubic inch Chrysler V8 engine, the same as in the early petrol powered variants of the

M113 armored personnel carriers. The five speed manual gear box allowed it to traverse relatively rough terrain. The V100 also had a road speed of 100 km/h, and could swim across water at 4.8 km/h. The armor consists of high hardness alloy steel called Cadoloy, which protected against small arms projectiles.

I have always had a soft spot for the V100, and I eventually chose to model "The Ugly Duck" belonging to C Company, 720th Military Police Battalion, after seeing a two part decal set had been released by Echelon.

The Duck's tactical code for C Company, 720th Military Police Battalion, was 'C50'. This vehicle

saw service in South Vietnam from 1971 through to 1972, and was employed to conduct convoy escorts and highway security throughout III and IV Corps Tactical Zones. While researching this build, I made contact with SP/4 Charles 'Dave' Spruell, one of the crew members who served on the "Duck", before moving on as the driver of another V100 "The Vulture". He has kindly allowed me to use excerpts from his Vietnam journal "On the Road Again", as well as period photos of the 'Duck'.

Dave's journal gives us a terrific insight into a day in the life of a 'Road Rat' or Military Policeman assigned to a V100 Company "who spent their endless days eating

dust, dodging rain, bugs, small arms and RPG fire, sleeping and eating when and where they could".

After completing his basic training and corps training, David awaited assignment in California. Most of the 150 MP's from the training went to Germany, while David was one of 20 that were sent to Vietnam. While there David kept a journal as well as writing letters back home. I have added sections of David's journal here, in order to give an indication of how tough life was working with machinery that was fast wearing out, convoy missions that took days and even weeks to complete all the while being understaffed and working in a hot and hostile environment.

## "ON THE ROAD AGAIN"

Excerpts from a daily Convoy Escort Journal 10 March - 7 November 1971  
by SP/4 Charles "Dave" Spruell

**24 May, 1971:** Well, I am now the driver of V100, C-5B. The best V in Charlie Company. We got it Saturday (22 May) and since then we have been working hard to get it ready. It will be two more days before we will be ready for convoys. So far it has two new rear ends, new transmission, and clutch. Today we put on a new carburetor and tomorrow we are putting in a new water pump.

**28 May, 1971:** Well I have been out 4 straight days with the V. We broke down yesterday coming back from Tay Ninh. We broke an accelerator cable and had to be towed all the way back. Got it fixed at 1130 last night and went to Vung Tau today. Tomorrow we are going to Bao Loc for 2 days.

The V100's are not 100% safe. Yesterday (27 May) the guy who sleeps next to me turned one over. It was really a freak accident. The accelerator stuck and the brakes went out at the same time. We had two choices. Run into the Long Binh Jail [USARV Stockade] or turn. He turned and it flipped over on its side. The IC ended up with a broken ankle, the driver with broken ribs and the two guys who jumped off twisted their ankles. Really hated to hear it. We didn't get back till 8 last night and by the time we got the car fixed it was 1130. Right now I'm dead tired. Its been 3 days since I had a full nights sleep.

**4 June, 1971:** Thought I had better write while I had the chance. All we have been doing is running. All of our convoys are getting larger plus going out more often. With more vehicles we have to stay out longer and I hardly make it in before 8 pm any more.

Yesterday we made three runs. One to Quan Loi, one to Nui Dat (that's half way to Vung Tau) and one to Bear Cat. We got in around 9pm. Quan Loi is the place they are flying their fire missions out of for Snoul. Snoul is about 35 miles from Quan Loi. We are going up there every day taking ammo. Mainly rockets for the gun ships.

**16 June, 1971:** Went to Tay Ninh today. Easy run up and back and that is the way we like them. All we have now is three cars running. Mine, Rich Nason's and Dan Ott's. We all came into the company at the same time. We all made the last Bu Dop run together.

**30 June, 1971:** C-63 is up now and I would have went out today but my IC did not make it back from Vung Tau. We're getting 6 more V100's in the company. That would give us 21. Right now we have 15 and only 8 are up. That is the most we have had in months. The convoys are the same. We picked up two more runs so if we get more V's maybe I'll get some rest now and then. I would just as soon keep going, time goes by much faster.

**15 July, 1971:** I have been gone for 7 straight days. Got back from Bao Loc two days ago and went to Tay Ninh today. Tomorrow I will be going to [Fire Support Base] Mace. We finally got the car painted with the patches on each side. Were naming it "Feelin Groovy".

**19 July, 1971:** The car went on dead line last night because of a brake line. Thought I would have a day off but I was put on POW guard. We have two POW's right now. We had nine straight days on the road and thought we would get some rest but it doesn't look like it. We'll be back on the road tomorrow.

**5 August, 1971:** I worked today taking a POW to Saigon. Tomorrow I am going to Bao Loc. I'm glad, I'd just as soon stay out on the road. Maybe just come in for fuel, supplies and sleep in a bed for one night and back out again. Right now "Feelin Groovy" is the only V up and running in my platoon. 1st platoon has 2 up. Same for 3rd platoon. We had 11 up at one time but they don't stay very long. All of the cars are so old and worn out that by the time you get one thing fixed something else is broke. C-63 [V100 Feeling Groovy] was a fairly new car when I got it. It had 20,000 miles on it and now has 26,500. (30 June to 5 August = 6,500 miles) 214 days to go. When I reach 200 I'm going to go out and tie one on. There are around 6 of us with the same days left so that group and around 12 more guys plan to go out and have a regular old party.

**22 August, 1971:** I had 12 hours of bunker guard last night and tomorrow I have 8 hours of POW guard. Come in for some work on the car and you end up on some type of guard duty. We are still running the same convoys.

**25 August, 1971:** Just got back from Phan Thiet and going to Bao Loc tomorrow. That will make 14



The motivation for this build.  
V100 "The Ugly Duck."



David in front of "Feelin Groovy", his last ride in country. Photographed at the MCAV compound in BAO LOC, 1971.



David in front of "The Vulture", the V100 that he drove after crewing on "Duck".



The "Duck" photographed inside the MP Compound at BAO LOC.



Charlie company's emblem, a testament to their constant convoy escort duties.



A shot of the gun jeep David drove before being given "The Vulture". Note the "Duck" in the left background.



Jeep and V100s in the compound.



A V100 with a gun shield.

and 15 straight days on the road. We got back early enough from Phan Thiet to change the oil and I guess we will keep running till the car quits. The runs are a lot more often than they use to be.

**12 October, 1971:** Convoys are the same except we've got 13 V100's up now so everyone is getting a

little more rest. Not much as by this time next week all the cars will be down again. They are just worn out since most of them were made in 1965.

David's full journal may be read at: [http://720mpreunlon.org/history/project\\_vietnam/convoys/spruell\\_journal.html](http://720mpreunlon.org/history/project_vietnam/convoys/spruell_journal.html) ►



The Hobby Boss V100 is a nicely detailed and creditable kit.

Strangely, the only hatch that is not designed to be posed open is the Commander's! Modifications were made to open this hatch and install a crew figure.

Headlight brackets were made from copper wire.

Various handles also formed from copper wire.

Weld beads were enhanced with fine lines of putty.

Slater's Alphabet letters and numbers to make the tyre codes.

The rear end was slightly lowered to replicate the look of those overloaded vehicles in the field.

#### ◀ THE MODEL

The Hobby Boss V100 (M706 Commando) builds without too much fuss into a very dimensionally accurate model. This is a good effort for such a new player in the market place. I must admit that for the cost price of this kit, I was expecting a pretty low standard with lots of fit issues and corrections required. However, a pretty accurate representation was obtained with only a minor amount of detailing. That being said, the interior is its weakest point and is best scrapped for an aftermarket one or scratch built item. I chose a

third option, and that was to just build it minus any interior detail and simply paint the windows glass black.

As I intended to plug the main hatch with a commander figure while having all the other hatches closed, this short cut saved me a lot of time. Oddly, the only hatch you cannot pose open, is the commander's hatch! I had to remove the hinge, which is molded in the closed position, and thus I had to re make it so that the hatch was open. The weld detail and closing strap and retainer were also added to the inside of the hatch.

Due to the weight of its armor,

the V100 has an unloaded mass of over 7 tons and the underrated commercial 5 ton truck differential bore the brunt of this inequality. This resulted with the vehicle suffering chronic rear axle failure caused by the extra weight overloading and breaking rear ends. Many photos of war time V100's show the weight of the engine and fuel by giving the vehicle a lower rear end stance. I wanted to reflect this half cool looking stance, so I lowered the rear axle assembly by simply cutting the kit springs where they joined the body and gluing them on at the new 1.5 millimeter lower point.

The surgery was to be covered by mud anyhow, thus form takes precedence over craftsmanship. It was with this same attitude that I tackled the articulation of the front wheels. The designers at Hobby Boss really don't want you to turn the kit's wheels, and in order to do so I had to cut off most of the inner front hub assembly and glue the wheels to the topside of the inner brake drum. The overall visual effect of the lowered rear and turned front wheels is well worth the surgery. Or maybe that should be butchery...

Rebuilding the winch opening was probably the most advanced



The poor interior was hidden behind blacked-out vision ports.



The machine gun and mount were liberated from a Tamiya Sheridan.

detailing on this kit, and even that was very straightforward. The kit includes a lump that really has no resemblance to the rollers and retainers of the winch mechanism; nor does it include the winch cable or cable mount. I overcame these issues by wrapping a leftover Karaya Panther track cable around a section of sprue and gluing this across the winch opening. Four sections of plastic rod were then cut to form the new mechanism. Two sections were beveled and glued on the open sides. The winch rollers were then glued into place before weld beads were added using Slater's 10 thou rod.

The wheels and tyres are also pretty weak, the kit coming with

four front wheels. As the rear uses a live axle, the hubs were different. I modified two of the wheels to better represent the hubs used on the rear. I also added valve stems from Grandt Line nuts and bolts as well as adding tyre codes. I used Slater's Alphabet letters and numbers to make the tyre codes. These were glued on using Testor's liquid poly, which melted the vinyl tyres enough for the number to be a right pain to remove when one realizes the numbers have been glued to the wrong side of the directional tyres! Since completing this build, two manufacturers have released resin wheels, which would probably be the way I would go now. ►



The faded Olive Drab finish may be appreciated in this view.



The Ugly Duck after a hard day's work.

◀ As can be seen in Dave's photo, the 'Duck' has a .50 Cal mounted on an M113 mount. As I had no Vietnam model kit spares, I had to purchase an Academy Sheridan to source the mount and .50 cal, which I treated to some minor detailing before gluing onto the turret.

The in-progress photos show fairly clearly the minor detailing, such as new welds, headlight brackets made from copper wire, wire conduit for the electrics assorted brackets and new aerial pots etc. I am sure you don't want to be bored with further trivial explanations!

### PAINTING AND WEATHERING

The 'Duck' was painted in the usual US Olive Drab, not the blackened Olive Drab that some V100's can be seen wearing after they were repainted in theatre. After a coat of Tamiya grey primer, I gave the car a quick squirt of Gunze Olive Drab I mixed with Tamiya XF-4 Yellow Green acrylic. Many of the V100's and APC's used by the Military Police display interesting dull and faded paint schemes. To simulate this, I started painting on progressively paler shades of the Olive Drab, concentrating on the horizontal surfaces. The Olive drab was "faded" by adding Gunze Lime Green. After a rushed and broad post-shade was sprayed on the vehicle, I added a filter using yellow oil paint.

Next, I sprayed on a coat of Future floor polish which I dried with a hair dryer in order to speed the process, before adding the excellent Echelon decals from set D356086. These are really thin decals and, once dry, blend right into the vehicle like they were a stencil. The Gunze Flat Clear went on next before a sparing coat of Tamiya XF-52 Flat Earth and XF-57 Buff was airbrushed onto the lower surfaces as a base for the mud and dust.

The mud is a mix of static grass, Tamiya Flat Earth and Games Workshop texture medium. 24 hours later, and I was adding various shades of light and dark browns oil paints to obtain the streaky and dusty finish seen in the photos. I used the paints sparingly on the upper hull, to just accentuate the fading, but then added progressively more as I went down the hull. The mud and dust effect on the wheels was achieved by applying

several random coats of various oil paints before giving the entire model a coat of Gunze flat clear. As these vehicles were mainly used on roads and around established air bases, they don't sport the traditional red dust seen on many of the armoured vehicles used in the country. ■

### Acknowledgement

Thanks to David Spruell for taking the time to patiently answer my many emails, as well as allowing me the use of photos and his wartime journal.

### Modelspec

Hobby Boss 1:35 V100 Commando Kit No. 82418

#### Materials

Scrap plastic card and copper wire.  
Academy .50 cal and mount.

#### Paints used

Gunze and Tamiya Acrylic paints.

#### References

"Cadillac Gage V100 Commando V100",  
by David Doyle. Squadron Publishing  
"Cadillac Gage V100 Commando 1960-71"  
by R.Lathrop & J.McDonald. Osprey Publishing

- ✓ Very good dimensionally; affordable price; straightforward build.
- ✗ Incorrect wheels; overly simple interior. It would have been better if Hobby Boss had included nothing at all instead of their poor effort.

#### Available from

Хорошо

Rating ●●●●●●○○

Progressively paler shades of the Olive Drab were applied over the base coat, concentrating on the horizontal surfaces.

Echelon's after-market decals performed superbly.



**“The Hobby Boss V100 (M706 Commando) builds without too much fuss into a very dimensionally accurate model.”**



One dirty Duck!



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1/72



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C72001 V-2/A-4 Rocket

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T35006 Pz.Kfz 35(t)

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**"The overall visual effect of the lowered rear  
and turned front wheels is well worth the surgery.  
Or maybe that should be butchery..."**



The excellent Echelon  
decals really do look  
like stencils.



A small decal sheet offers one marking option, but three sets of generic white outline numbers are also included.



# PICK-UP PANZER

Stuart Ransley examines Trumpeter's 1:35 scale recovery version of the long-serving Panzer IV family.

**T**he Bergepanzer IV was an armored recovery vehicle built on a Panzer IV hull. Production commenced in October 1944

with 36 being built by December 1944. They were converted from standard Panzer IV tanks with the gun and turret removed and the resulting opening covered over with timber planks. A 2 ton jib was added to the upper hull and rigid towing bars were also carried.

I have always had an interest in off-beat and unusual armored vehicles so I jumped at the chance to take a look at Trumpeter's 1:35 scale Bergepanzer IV. On opening the box we find a total of 18 sprues containing a total of 826 parts all molded in the usual light grey plastic, two photo etched frets, one length of

chain, one decal sheet, one colour painting guide and the 20 page assembly instruction booklet.

A quick glance through the instruction booklet will reveal the most notable feature of this kit. It comes with a complete interior with a fully detailed drivers and central compartment. The engine compartment is just as detailed with a very nice, although a little basic, Maybach HL120 TRM engine and associated equipment.

The parts are crisply moulded and flash free. There are the usual mould lines and ejector pin marks that will have to be removed but these should not present much of a problem. The lower hull is of the conventional tub type with crisp detail and no flash. The tracks are well-detailed individual links representing the later 40cm style

cleat style with the open guides. They will require cleaning up due to the number of attachment points to the sprue, and are not designed to be workable but glued together. The running gear is crisply moulded. The road wheels have great detail with fine weld beads around the outer rim and delicate embossing on the rubber tyre sections. The drive sprockets have very nice spoke and rim details including bolt heads around the rims of each sprocket. The crane is probably one of most complex items of the kit, with some of the smallest photo-etched parts I have ever seen. Trumpeter has provided plastic alternatives so you do have a choice, which I believe is an excellent idea. Many of the other photo-etched parts

also have alternatives in plastic.

The instruction booklet is well laid out and easy to read, but it would be advisable to study each step due to the complexity of some of the stages of construction.

The decal sheet has two balkenkreuze and a selection of vehicle numbers in white. The painting guide shows a vehicle finished in overall panzer grey but as these vehicles were built in late 1944, dark yellow or camouflage would probably be more appropriate.

The first of a few minor problems is the interior. The interior includes ammunition lockers and sponson racks which would not be needed on this vehicle. A panel with engineer tools is provided, which is a more appropriate alternative for the type of vehicle.

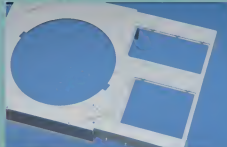
The second of the problems with the kit is the early style rubber rimmed return rollers that are provided. The few references I was able to find show the Bergepanzer IVs were fitted with the later steel return rollers.

In conclusion, this kit will require a lot of work in construction due to its complexity (particularly if you use the interior) but will build up into an impressive replica of the Bergepanzer IV. With only a few minor problems that can be easily rectified, this kit represents good value and I think one of Trumpeter's best efforts yet. Highly recommended. ■

Thanks to JB Wholesalers for the sample  
[www.jbwholesalers.com.au](http://www.jbwholesalers.com.au)



The standard Trumpeter Panzer IV lower hull is bristling with moulded detail.



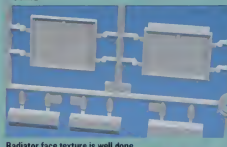
All the hatches on the upper hull, including the engine deck, may be posed open.



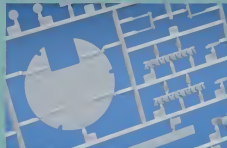
A length of chain is also included for this recovery variant.



A detailed transmission and full engine compartment are included.



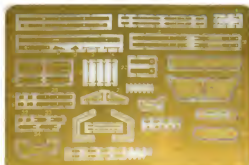
Radiator face texture is well done.



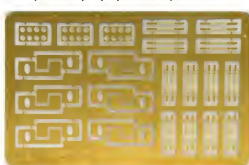
It would be a shame to cover up all that lovely fighting compartment detail, but you do have that option.



Strangely, ammunition is provided for this unarmed vehicle.



Trumpeter offers plenty of photo-etched parts in the box.



In fact, two decent sized frets are included.

#### November 7th SQUADRON 2009.

The Australian Plastic Modellers Association will be hosting "Squadron" on Saturday Nov 7 at the Hornsby RSL Memorial Hall (not the Hornsby RSL but the hall 2 doors up). The venue is almost 2.5 times larger than our previous venue & looks a lot brighter.

Squadron is the sister (or brother) show to Battalion. Squadron is the show for ships, aircraft & Sci/Fi / Real Space Vehicles.

#### November 7th

IPMS Mid-Tennessee Model Contest and Show.  
 IPMS Mid-Tennessee will be holding their Model Contest and Show on Saturday November 7 2009 at the Rutherford County Agricultural Center, 315 John Rice Blvd., Murfreesboro TN 37129. For additional information please contact: nhenryjr@bellsouth.net or a330driver@bellsouth.net

#### November 22nd

BUGLE CALL 2009  
 The Largest Military Modelling Show in the South West.  
 The Pavilion, North Parade Road, Bath BA2 4EU.  
 The show is organised by the Bristol branch of the British Model Soldier Society. For further information contact Robert Lane at elanlane13@tesco.net

#### February 7th

MODELKRAFT 2010  
 Milton Keynes Scale Model Club is taking over Stantonbury Leisure Centre, Milton Keynes, MK14 6BN on Sunday 7th February 2010 and hosting one of the biggest model shows in the country - ModelKraft 2010. Pop along to the show any time from 10am to 4pm and you will see a wide range of amazing miniature hand crafted models of practically every imaginable subject - from cars, and planes to boats, to figures, science fiction, and war time subject matter. True to life dioramas will present a true slice of life in miniature.

ModelKraft brings together, for one day only, over 100 Model Clubs and Traders, showcasing many thousands of the best models as well as suppliers of kits, accessories and tools for the modeller. Modellers of all skill levels are invited to bring their models along and enter them into our well respected model competition with classes to cover all model types. Entry is just £4 for adults and £2 for children and concessions. As an added bonus, you can bring the whole family for £6, giving you a potential 6 hours entertainment from the 10am opening.

For information about the club and the show please visit our website at [www.mksmc.co.uk](http://www.mksmc.co.uk),

contact the club secretary on 01582 660984, or email [secretary@mksmc.co.uk](mailto:secretary@mksmc.co.uk). We always welcome new members at our monthly meetings at the Cranfield University Social club on the fourth Wednesday of the month at 8pm.

#### March 6th

The Greater Peterborough Model Show 2010 to be held on Saturday March 6th 2010 again in the town hall Peterborough. Once again proceeds from the show will go to the Mayors charities as in previous years.

#### April 16th - 18th

The IPMS/USA Region 11, Regional Contest and Modelfest, will be hosted by IPMS Space Coast, at the Holiday Inn, Oceanfront Resort, Cocoa Beach, FL. For details contact Mark Warthling at (321) 508-3743, before 9:00 pm, or [e-mail:markwarthling@cfl.rr.com](mailto:e-mail:markwarthling@cfl.rr.com). Visit the web site at [www.ipmsspacecoast.com](http://www.ipmsspacecoast.com)

#### May 22nd

South Devon Model Extravaganza 2010.  
 This is the first of what we hope will become a regular event in the heart of beautiful South Devon. The show will be held at the Newton Abbot Race Course. Larger attractions, these will include plastic modelling, live steam, railways, slot cars radio

controlled vehicles and aircraft (in action), war gaming, fantasy and more. A competition will be open to any modellers who want to enter the multiple classes on offer with no need to belong to any club. The venue is easy to find (TQ12 3AF) with ample of safe off road free parking. Request for clubs or traders should be addressed to Paul Thompson 21 Graham Road, Paignton Devon TQ3 1BB Tel - 01803 558 520 Email - [info@just-bases.co.uk](mailto:info@just-bases.co.uk)  
 Alternatively contact John Wilkes at [john@skywriters.net](mailto:john@skywriters.net)

#### Their Finest Hours

- New photographic exhibition enhances Land Warfare Hall at Imperial War Museum Duxford  
 Imperial War Museum Duxford is delighted to host a new exhibition of photography and poems by the Talking Pictures Group of disabled artists. Entitled Their Finest Hours, the exhibition depicts sites that once had some military significance and shows how the places depicted, now mostly in some state of decay, once made a tremendous contribution to the war effort. Those times when these sites were most valuable to the nation were indeed Their Finest Hours.

Their Finest Hours will be on display in Land Warfare Hall until winter 2009. Entry to the exhibition is included in standard admission to Imperial War Museum Duxford.







# Letters

WRITE TO: MMI Letters, ADH Publishing, Doolittle Mill, Doolittle Lane, Totterhoe, Bedfordshire, LU6 1QX, UK  
Tel: 01525 222573 Fax: 01525 222574 Email: editor@modelmilitary.com  
The views expressed are not necessarily those of the editor or publisher.  
Letters may be edited for publication.

## PLEASE BRING BACK SPUD

I am disappointed to note that in spite of my correspondence you are still promoting a kit that is not and never will be available in the UK. Only 150 of these kits made it to the UK. They are not available on the web and they will not be produced by Tamiya again. If you cannot listen to your readers then you really should reconsider your position as Editor. This magazine used to be exceptional but it has seriously gone down hill since it has had a new Editor. It seems to me that this magazine is now aimed at the chosen few who can get free kits from the manufacturers and the rest of us ordinary mortals are forgotten. Please bring back Spud as he at least was in tune with the readers.

Yours  
Dr. Josephine Gilbert  
United Kingdom



**Ed says:** Dear Dr. Gilbert, Thank you for your note. I cannot confirm the accuracy of your assertion about the number of kits brought into the United Kingdom or your insights into Tamiya's future manufacturing plans, but at the time of writing Tamiya's LRDG Command Car was still available from a number of online sources.

As for your comment about the chosen few receiving free kits, in fact I purchased this model out of my own pocket at full retail price. I confess that I did not consider the number of kits that were imported into the UK or any other market when I made my purchase. I bought and built the kit because I was interested in the subject and the camouflage scheme, and I thought that the readers of MMI might be too.

There is no doubt that this LRDG Chevy and Breda 20mm Gun is currently a limited issue, but Tamiya has been known to re-release elements of Limited Edition packages in larger numbers further down the track. A recent example is Tamiya's Limited Edition

1:48 scale Humvee, which was previously only available as a package with the F-117 but will now receive a general release.

Regardless of its eventual wider availability, in my opinion the value of any article is more than a simple slavish sequence of assembly. I hope that most articles in MMI will offer suggestions about different techniques and inspiration to build related subjects, regardless of the particular kit being built. If you can't find the Tamiya 30 CWT in 1:35 scale, perhaps you could try out the conversion and colour scheme on the old 1:72 scale Matchbox LRDG Chevy.

And finally, I am sorry to advise that Spud has taken a position with another publication, so your request in that regard is unlikely to be fulfilled.



## NEW CONTEST CATEGORY

I think there should be a new category at model contests for unfinished models. I love the look of my models just before getting painted, weathered, etc. All the different colours of brass, white styrene, metal cables, copper wire, etc shows ones skill along with the difficulty of the build. This allows for one to see the quality of the construction. Building skills are overlooked seeing as how all the models at shows are finished. Being able to see all the different media gives one an idea on the difficulty of the build. The models would be judged on criteria such as no visible glue marks, presence of gaps, seam lines, knockout marks, etc. Also, you won't be able to cover up mistakes with paint and weathering. This category would be all about quality of the build.

Michael Devine, Via email

**Ed says:** Hi Michael, Nice idea. I always like the look of my models before painting too. Seems a shame to hide all that hard work sometimes!

It would be interesting to see a table full of models with exposed putty weld beads, resin accessories, photo-etched tool clamps and more. Maybe some day...

## WHAT'S THE SCORE?

I would just like to congratulate you on your good work. In particular, I enjoy the From the Front Line section. However, in your reviews, I notice that you have done away with the old marks out of ten system and now just say "highly recommended" or "recommended". I would appreciate it if you moved back to the old system as it makes it much easier to compare.

Keep it up!  
Paul Simpson  
UK

## WHAT I WOULD LIKE TO SEE

Hi, I have bought your magazine since Issue 1 following my decision to start modelling again. I have found your magazine informative and helpful over the years. In particular, I would like to compliment you on how well laid out the recent articles on the Citroën and the Marder were. The photographs of each stage were the best I have seen in my opinion. I have only a few thoughts and ideas that I think would improve the magazine and I am sure you have already considered them, but if you don't ask as they say. I would like to see:

1. More competitions.
2. Articles on scratch building, for example, how to make your own track or tank road wheels.
3. How to cast and make copies.
4. How to solder photo etch.
5. How to make buildings.
6. An article on how a kit is actually made from design to moulding.

Yours,  
Robert Cousin  
United Kingdom

**Ed says:** Hi Robert, Thank you for the kind words. Your suggestions are very welcome too. We will certainly be bringing you more tips and techniques in future Tech Guides, and we will take your specific topics on board as possible subjects. In the meantime, Tamiya Model Magazine has published two articles on related subjects - "A Visit to Squadron" in Issue 168, and "The Evolution of a Kit" in Issue 166. These might be worth checking out.

**Ed says:** Hi Paul, Thanks for the note. I am glad to hear that you are enjoying some of the new departments.

Yes, you are correct in that I have largely done away with the mark rating system. I was concerned that the vast majority of marks were between 8 and 10 out of 10. With such a narrow range of marks to compare, I felt that the points rating system was fairly meaningless. The marks are very subjective too. One person may rate one factor more highly than another, which will skew the points awarded. I actually thought of having a rating system with the options "I like this a lot", "I like it" and "I don't like it". At least this would make it clear that the rating is a personal opinion!



## RANDOM REFERENCE!

### BANTAM BRC-40 ACCELERATOR PEDAL

Robert Notman has sent a photo detailing the floor of the Bantam BRC-40 showing the brake, clutch and gas pedal. Mr. Stavros Soulls of Greece noted in recent correspondence that several books, publications and the model's instructions failed to mention the gas pedal or its location. Unlike the jeep, the Bantam's gas pedal, or accelerator as it is called in the Technical Manual 10-1205, is shaped like a button.

The black rubber "button" in the photograph is the accelerator footrest. The button directly under the steering column is the lighting dimmer or high/low beam foot switch.

The photograph was provided by the Veterans Memorial Museum of Huntsville, Alabama. Web site: [www.veteransmuseum.org](http://www.veteransmuseum.org)



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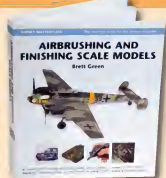
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## FINISHING SCHOOL PART TWO – A BRIEF HISTORY OF COLOUR

The Editor hosts a series on understanding and getting the best from your airbrush. Part Two outlines how colours, tints and shades are broken down, and how perception changes depending on distance and scale. Several techniques for rendering authentic scale colours are also suggested.



A Federal Standard FS 595A colour fan is a big investment, but it will be very useful to serious students of camouflage colours and markings. The IPMS Color Cross Reference Guide is an excellent companion to interpreting the FS 595A fan.

### Elements of Colour

The business of the airbrush is colour. We will therefore spend a little time examining what makes up colour.

Colour might be described technically as the effect of reflected light from an object, and how this helps us to perceive differences between otherwise identical objects.

We may categorise the qualities of colours as follows:

#### • Hue and Chromaticity

Hue is what we normally think of as colour. Primary colours are arbitrary sets of hues that are chosen as the basis to mix a larger range of colours. For example, in painting, Red, Yellow and Blue might be considered to be primary colours. Any two of these mixed together would represent a secondary colour (e.g. Blue plus Yellow equals Green), with all three colours producing a tertiary hue. All the colours on your computer screen have been blended from Red, Green and Blue, hence the computer colour acronym "RGB". Another definition, based on psycho-visual studies, suggests that there are four "unique" colours, Red, Yellow, Green and Blue. Regardless, hue is a "pure" colour.

Chromaticity refers to the purity of the hue. The highest chromaticity value is when there is no black, grey or white present in the colour. The hue will therefore be bright and vibrant.

#### • Shades, Tints and Tones

Strictly speaking, Black and White are not colours. Black is a shade, and white is a tint. Adding white to a pure hue will create a tint of that colour (lighter than the original hue). Adding black to a hue will create a shade (darker than the original hue).

If grey is added to a pure hue, the result is a tone.

#### • Saturation

Saturation refers to the intensity of a colour when viewed under different lighting conditions. This is different to brightness or lightness. Saturation levels define the strength or weakness of any given colour under different light.

#### • Brightness and Luminance

Brightness is the value that tells us how light or dark a colour is compared to white. Lighter colours have a higher value than darker colours. Different colours may have the same brightness value, or widely contrasting values.

Greyscale has no brightness value.

### CATEGORISING COLOUR

We have already briefly discussed several systems used for categorising colour. There are other systems that have direct relevance to modellers.

The Pantone Matching System is a proprietary standard for matching colours in printing, paint manufacture and the fabric industry. The standard defines thousands

of colours, identified by a number with the actual colour reproduced in a sample colour fan deck.

In addition to proprietary systems, Governments worldwide have attempted to standardise the use of colours. Some of these standards are well known in military and modelling circles as the basis of camouflage and marking colours for vehicles and aircraft.

The American Federal Standard 595 is one example. Similar to Pantone, the colours are defined by a unique identifier (eg FS 34092), which is associated with a lacquer colour sample in a fan deck. The identification number in FS 595 itself provides information about the colour. The first digit states the level of gloss. The second digit defines the general colour or shade group (this includes categories for miscellaneous, metallic and fluorescent colours). The final three digits describe the lightness of the

colour – the higher the number, the lighter the colour:

#### First Digit – Finish

- 1 - Gloss
- 2 - Semi-Gloss
- 3 - Flat or Lusterless

#### Second Digit

predominant colour classification grouping:

- 0 - Brown
- 1 - Red
- 2 - Orange
- 3 - Yellow
- 4 - Green
- 5 - Blue
- 6 - Gray
- 7 - Miscellaneous (whites, blacks, etc.)
- 8 - Fluorescent

#### Last Three Digits

The last three digits of the Federal Standard number are assigned in the approximate order of increasing reflectance.

### Four distinctly different hues



### Adding black creates a shade of the original colour



### Adding white creates a tint of the original colour





So, we can tell that our example of FS 34092 is a lustreless (flat) finish as indicated by 3, is green as suggested by 4, and is quite dark as suggested by the low value of 092.

A fan deck containing all the Federal standard colours is available from specialist retailers for around USD\$160.00.

Other colour standards useful to modellers include British Standard 381; and German RLM (Reich Luft

Ministerium - German Air Ministry) colours used during the Second World War.

In the late 1980s, the "IPMS Color Cross-Reference Guide" was published. This book, by David H. Klaus, cross-referenced various popular colour standards including FS 595A, RLM, RAL BS and more, against various brands of available model paints. It also matched a wide selection of model

paint colours to the closest Federal Standard colour. In combination with my Federal Standard fan deck, this remains one of my most essential reference sources.

There are a number of other very useful reference publications that contain actual paint samples matched to the relevant standards.



Other standards are also covered in print. The most valuable of these offer separate samples of the colours as actual paint chips. The limitations of the conventional colour printing process means that colour samples in books are unreliable. These actual paint samples overcome printing limitations.

## Colour Perception Considerations for Modellers

### SCALE EFFECT

Whether we build cars, tanks, aeroplanes or figures, our replicas will be much smaller than the original subjects.

There is a school of thought that defines "scale effect". The general proposition is that colours will appear lighter or weaker when viewed from a certain distance. The level of lightness or weakness will increase as distance increases.

If we are looking at a 1/48 scale model from a distance of one metre, the equivalent scale viewing distance of the full sized aircraft would be 48 metres. In other words, the colours should appear as if the real vehicle was nearly 50 metres away. At this distance, atmospheric effects will be quite noticeable and the saturation and intensity of any given hue will appear to be less, while lightness may increase.

This principle clearly does not apply at very great distances. An aircraft flying high in the sky, or a ship out at sea, will appear to be very dark.

However, the effect is worth taking into account under most circumstances, especially if your model is wearing very dark colours. Scale effect is especially relevant in small scale model as the scale viewing distance at one metre will be much greater for, say, a 1/144 scale vehicle than a 1/16 scale model of the same subject.

In practice, scale effect requires a proportion of white paint to be added to the basic colour in order to reduce its chromaticity. The actual proportion of white paint added will depend partly on the scale of the model, and largely according to the personal preference of the modeller.

Some modellers propose that 25% white should be added to deliver an appropriate scale colour for 1/48 scale. Under the general principles, a larger percentage of white should be added for smaller scales (for example, 35% for 1/72 scale), and a smaller percentage for larger scales.

In *Scale Aircraft Modelling* magazine, Volume 5, Number 10, noted colour researcher Ian Huntley suggested that the proportions required to correctly depict chromaticity under northern European lighting conditions would be as follows:

1/144 scale	add 7% white
1/72 scale	add 15% white
1/48 scale	add 10% white
1/32 scale	add 23% white

It is worth considering that Scale Effect will be different depending on the nature of the light. For example, the hue may be more intense when viewed from the same distance in the bright, hard sunshine of the South Pacific compared to the softer light of Northern Europe. In this case, a lower proportion of white would be warranted.

### EFFECTS OF WEATHERING ON PAINT

Scale Effect is not the only factor impacting the original colour applied to an aircraft or a vehicle.

The colour itself may fade as a result of exposure to bright sunlight or other harsh climatic conditions. The colour may not fade evenly. Some colours were notoriously unstable, especially colours with a red component, and may fade to distinctly different hues even on the same vehicle. During the Second World War, US Olive Drab would frequently degrade to a much paler shade in a short time.

Exposure to harsh conditions also affect the level of sheen on a painted surface. A high gloss finish will offer a measure of protection, but prolonged exposure will result in the surface becoming flat in appearance and chalky in texture. Sometimes this can happen very quickly, with gloss paint reverting to dead flat in a fairly short time.

Paintwork on many military vehicles and aircraft will be stained from oil, fuel and general grime. Dirty residues will often be retained in the recessed of access hatches and overlapping

### Scale effect on neutral grey



Scale effect suggests that a vehicle will appear paler or the colour weakened when viewed from a distance. Here is the effect of adding 10% white and 25% white to the US WWII colour, Neutral Grey.

### Adding grey to a pure hue results in a tone.



panels, adding a dark "line" effect even when the panel lines may be relatively smooth. Flat or chalky paint finishes will tend to absorb stains too, so the even a single overall colour may appear mottled and irregular.

The effects of airflow may also leave visible marks on an aircraft. Fine, chordwise streaks are often seen on wings and tail planes. Cordite stains from guns being fired in flight, and exhaust gases will frequently leave prominent marks. In the case of exhaust stains, these may be dark in the case of an engine running a rich mixture, or pale (even a chalky white) when resulting from a lean fuel mixture. Sometimes, a combination of overlaid light and dark stains may be seen.

In the field, many aircraft and vehicles will be partially repainted and repaired. This will result in more intense areas of fresh colour contrasting with older, weathered paint.

Dirt and debris can damage paintwork. On aircraft, the leading edges of wings and tail planes are sometimes seen to be chipped, revealing primer or even metal beneath. The same effect can be seen on propellers. In fact, on unmade airfields, much of the paint

on propeller blades can be blasted off by sand, small stones or dirt. This effect is usually much more severe on the rear of the propeller blades. On both aircraft and vehicles, the boots of crew members will leave dirt and may even chip and damage paint work. This will be especially noticeable on the wing roots of aircraft. Bare metal may also be exposed on frequently handled fasteners and the edges of removable panels.

We will discuss how to reproduce these effects in later instalments.

### MODEL PAINTS

Model paints are available from an ever growing selection of companies, conforming to many different paint standards. For example, a number of paint manufacturers offer model paints that conform to the American Federal Standard 595. This makes it easy to match the paint of a real aircraft that is painted with, for example, FS 34092, with its model paint counterpart.

Similarly, a number of key colour standards from the Second World War are also covered. Polly Scale, Xtracolor, Gunze Sangyo and many others offer Luftwaffe RLM colours, British Standard colours and more. ■

# SHELF QUEENS AND THE STASH

**H**ow big is your stash? And how many shelf queens do you own? I often laugh when I hear the term "stash" used in reference to how many unbuilt kits we have in our collections. It is almost as if we think that they are an illegal product that we have to hide away. Many times on online Forums, modellers will come out of the closet (probably because there are so many kits in it!) and declare with some remorse they have 500 or 1000 unbuilt kits. Modellers will have a lot of kits they will never build because their tastes almost inevitably change, or they move up or down in scales. The speed of our builds is another factor that comes into play. In my case, my collection has grown for almost all of my modelling life even when I didn't build kits and lived in various locations around the country. I always bought and kept a "travelling stash", as I would call it. The term "stash" has connotations with the illegal drug trade. There is no doubt that collecting kits is addictive but unlike drugs it is mostly pretty harmless. However, there is the question about all the money we spend over the years on these seemingly worthless possessions. Indeed, anyone who isn't a modeller really can't understand it at all (I'm starting to sound like a plastic addict now). Even so, the money we spend can be repaid many times over when we revisit the contents of the kit even before we build it. Should we feel guilty about how many kits we have? The simple answer is no. I have hundreds of kits in my collection and I feel no remorse whatsoever. I don't care if I have many more in my collection when they prise the Xacto knife from my cold dead hand. Why? Because my collection gives me joy. For me,

there are few things more enjoyable than spending a lazy Sunday afternoon going through my collection and thinking about how good a model would be if I did the kit either this way or that way. It is a bit like having a hobby shop at home.

The question of having a large kit collection goes hand in hand with the number of "Shelf Queens" many of us seem to have. Modellers often have a sudden rush of blood to the head and start building a particular kit only to lose interest and either put it back in the box before the kit goes into deep storage. The real question is, when will we actually get around to building these kits? I myself have close to twelve 1/35 and eleven 1/48 scale projects on my current "to finish" pile. These can range from almost complete to barely started projects. Funnily enough these "shelf queens" offer a good guide to how our modelling skills have either improved or indeed declined with time. I have noted a number of my earlier builds in this "to finish" pile show a complete lack of photo etch and, as a result, I tend find these builds unsatisfactory now. These builds can be good "in between" projects that I can pick at until I get inspiration for my next build. The really strange thing is that my most current build is just such an example of a model waiting to be painted for over two years, and indeed I never thought would get built.

Until next time *Luke Pitt*  
(probably with more kits in the stash)

## Model Military International 1:48 Scale Q & A

As outlined in last issue's column, I will conduct a brief Question and Answer section for the next couple of months in order to introduce MMI's readers to some 1:48 scale modellers whose work I admire. In my view, the modellers selected stretch what can be achieved in this scale either by painting or scratch building. I think we can learn a lot from these guys and I always try to incorporate their new and innovative techniques into my own builds.

Our second interviewee is Sven Frisc, who comes from Munich, Germany and works as a Psychologist. His painting and finishing styles are second to none and he has traditionally worked in 1:35 scale. It is pleasing to note that some well-known modellers decided to cross over to 1:48. I for one am trying to emulate his finishes and style.

### THE INTERVIEW

**Luke:** Hi Sven good to have you with us. What would you consider to be your best 1:48 scale model and why?

**Sven:** *Hi Luke. I am very humbled to be asked to appear in this column of yours and I wish you every success with it. My best 1:48 scale model is the StuG III Ausf. B. I pushed it pretty far in regards of detailing and used lots of aftermarket pieces on it, to get the highest level of detail. Also, I found the whitewash finish quite challenging and time consuming, but rewarding in the end. It also features a figure painted by my friend Robert Doepp. The figure itself is a masterpiece*

**Luke:** Yes, Robert's work is outstanding. I must ask him to come over and have a chat some time. What is the most influential 1:48 scale model that you have seen in print and why?

**Sven:** *The most influential 1:48 scale model to me is Robert's Tiger as seen in Tamiya Model Magazine about 3 years ago: [www.robert-doepp.de/de/projekte/1\\_48\\_tiger/bilder.php](http://www.robert-doepp.de/de/projekte/1_48_tiger/bilder.php) In my opinion it is still one of the very best models ever built in this scale and Robert proved that a 1:48 scale model can easily compare with a 1:35 model! The super detailing and the finesse of the paint chipping are outstanding! I still remember the huge impact that model had on me when I first saw it.*

**Luke:** If you had to pick one kit that should be made in 1:48, what would that be?

**Sven:** *The 1:48 kit I would choose is a Ferdinand/Elfant. I know that there are older kits in this scale still out there. But I would love to see this beast from Mr. T! Or maybe a Hummel and a Nashorn...*

**Luke:** There seems to be a trend here with open topped vehicles I too would like a Nashorn only to have foliage on it!

**Sven:** You and your foliage!



Luke Pitt hosts MMI's examination of the growing world of 1:48 scale military models, figures and accessories.



#### WWII PRODUCTIONS

##### 1:48 JAGDPANZER 38(T) TRACKS - ITEM NO. 4817

World War II Productions has released an individual "click-link" track set for the Tamiya Hetzer and, to put it simply, they are superb. The level of detail on these tracks rivals anything in 1:35 scale and is a credit to Bill Wiseman's master pattern. The tracks differ ever so slightly from WWI Productions' previously released set for the 38(t) and are specifically applicable to the Hetzer. The all-important fit of the tracks to the drive sprocket is faultless. It is also worth noting that almost no cleanup will be required before the links are simply clicked together without the need for jigs or glue.

Highly Recommended.

Thanks to WWI Productions for the sample.

Luke Pitt



#### ARTOFWAR (SQUAD 48)

##### US TANK CREWMAN LATE WWII ITEM NO. A0W48/11

Artofwar has released a late-war US Tanker complete with a Sherman vignette base. The casting and the animation of the figure as well as the Sherman is first rate, with no air bubbles or distortions present. The figure includes three different heads, which is a first for a 1:48 scale resin figure. Sculpted by the talented Paul Quek, the tanker's bib and brace uniform is depicted very well and it is pleasing to see a little pot belly on this figure. The Sherman vignette is an original idea and may encourage figure painters to complete this set as a standalone piece. The tarps on this vehicle are noteworthy. They are the best I have ever seen. It is only a shame that they are cast in place on the vehicle!

Recommended.

Thanks to Squad 48 for the sample.

Luke Pitt



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# Small Scale A round-up of the latest news and releases in 1:72 and 1:76

## ARMORY

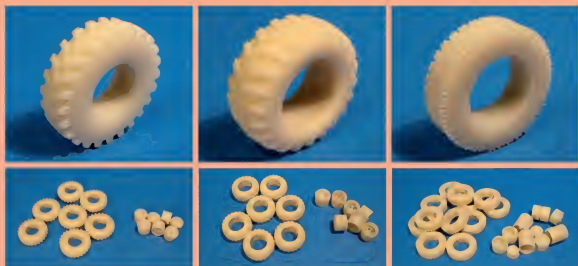
### 1:72 RESIN WHEEL SETS

Armory is a Ukrainian manufacturer of resin kits, detail sets and conversions for both aircraft and armour models. A number of wheel and tyre sets are available in 1:72 scale, aimed at replacing the often poorly detailed versions included in the donor kits. According to Armory, all of the sets reviewed below were created using "3D technology" - referring to the CAD (Computer Aided Design) and 3D printed masters used for casting the parts.

All the sets below are moulded in a pale yellowish-sand coloured resin with no air bubbles or flash present whatsoever. The tread detail is simply superb, being both very fine and crisp. The pour plugs have all been removed from the tyres, leaving the smallest of burrs that will be easily hidden at the bottom of the tyre when in contact with the ground.

All Highly Recommended.

The Armory range can be found at [www.armory.in.ua](http://www.armory.in.ua) and are also available via HobbyTerra at [www.hobbyterra.com](http://www.hobbyterra.com)  
Alex Clark



### 1:72 URAL 4320-10 OI-25 WHEEL SET • KIT NO. AR AC7258

Intended for the Z+Z / ZV-Models / ICM kits, the set contains 7 tyres and 7 hubs, enough for a full set for one vehicle, including the spare tyre. These are a clear improvement over the hard plastic versions provided in the kits and will be simple to fit to the model.

### 1:72 KRAZ-255B VI-3 WHEEL SET KIT NO. AR AC7256

This set is for the E-Class model of this heavy truck. The soft rubbery tyres of the E-Class kit are very poor representations of the real thing so this set is a real must for the kit. Virtually no clean up is required and they'll be a straightforward fit to the model.

### 1:72 KRAZ-258 WHEEL SET KIT NO. AR AC7254

The Kraz 258 set for the E-Class kit contains 12 wheels - 2 for the cab, 4 doubled rear and 2 spares. The benefits of using 3D printing are clear, as the tread pattern of both these and the tyres in the other sets are incredibly delicate and sharp. Hopefully the 3D approach will be used for further releases as the results really are top notch.



## PEGASUS HOBBIES

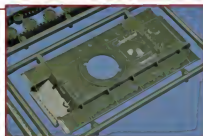
### THE MILITARY MUSEUM COLLECTION KV-1 (M1940) & KV-2 SOVIET HEAVY TANKS KIT NO. 7665

This fast assembly kit by Pegasus is most likely targeted at the wargaming set, but these little Soviet tanks are far more detailed, particularly in the tracks and running gear, than many that are currently available. Like the others, you get two complete kits in the box but in this one you get the option of the regular KV-1 gun tank, KV-1 (up-armoured "Ekranami") or the KV-2 with the 152mm howitzer. Each tank comprises two sprues plus a separate lower hull all in dark green plastic. The main sprue has the upper hull, one-piece track (complete with realistic sag) and outer wheels, separate inner wheels and suspension arms plus fender equipment boxes. The second sprue carries all of the parts for both types of turret. Two complete models may be built. Pegasus has made an effort to give the mouldings a rough cast look but I think they may have gone a little overboard. The two turret sprues have only a central runner with the parts on either side similar to early Airfix, which might result in parts being damaged in transit. Parts are not in plastic bags either. This is generally a good effort.

Recommended

Thanks to J.B. Wholesalers for the review sample [www.jbwwholesalers.co.au](http://www.jbwwholesalers.co.au)

Glen Porter



## TRUMPETER

### 1/72ND SD.KFZ. 182 KING TIGER PORSCHE TURRET WITH ZIMMERIT • ITEM NO. 07929

Trumpeter's 1/72 King Tiger (Porsche Turret) with Zimmerit is a bit of a disappointment. It is not a bad kit, but it doesn't compare with Dragon's recent effort.

It has some good points compared to their earlier kits. Moulding is clean and crisp with no flash to speak of, the shape looks good and at least the Commander's hatch can be modelled open. The Zimmerit is the main disappointment. Dragon's is quite deep and responds well to washes and/or dry brushing. Trumpeter's is just too soft. On close inspection, it looks like a flat surface covered in tiny weld beads that will be very hard to accentuate. I suppose it's better than having no Zimmerit at all, it just could have been so much better. Trumpeter has also made an error with the spare tracks that hang on the turret sides. They have moulded lovely detail on the tread side (which won't be seen), and the guide tooth side is quite good too but right in the middle of each link is a big ejector pin mark directly between the guide-teeth where they will be impossible to fix. Trumpeter has demonstrated the ability to improve their product over the years. I hope that their next effort at 1:72 scale Zimmerit will be better than this, as it lets down an otherwise respectable effort. Thanks to J.B. Wholesalers for the review sample.

[www.jbwwholesalers.co.au](http://www.jbwwholesalers.co.au)

Glen Porter



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## VOYAGER MODEL

### 1:35 SCALE PHOTO-ETCHED AND RESIN DETAIL SETS

#### ITEM NO. PE35193: WW2 GERMAN Sd.Kfz.232 8 RAD EARLY (TAMIYA)

The re-release of Tamiya's elderly Sd.Kfz.232 8 Rad was a welcome surprise for me, as I had always wanted to do one but was unable to find the original kit. This update from Voyager includes five quite large photo etch frets together with five resin pieces, one length of tow wire and four machined wind indicators. Two pages of instructions cover all of the external details and include a complete armour plate package on the front of the hull, grille work on the rear of the vehicle, mudguard access plate upgrades, wheel hub improvements and the various boxes and tool clips on the exterior of the vehicle. There are 41 construction sequences and the brass itself is first class, with all bend marks clearly defined. The resin castings are well presented with no air bubbles in evidence. I am pretty impressed with this set as it covers most of the parts that were heavily moulded on the original Tamiya kit. This is a great set and will add certain finesse to the Tamiya kit as well as adding scale thickness to the armour plate on the exterior of the vehicle.

Highly Recommended.



#### ITEM NO. PE4176: WW2 GERMAN TANK STENCILING TEMPLATE 1

There are some in the scale armour community that believe the only way to accurately portray German Tactical numbers is to paint them as they did in the field with the aid of a stencil. The jury is still out on that one but now Voyager have added another option for the modeller to achieve this. This is quite a simple set that includes one medium size photo etch fret. The set covers two styles of German crosses and one style of number stencils. The photo-etch is logically separated into oblong boxes so placement and painting should present no difficulties when these are being used. This set will provide an inexpensive aid for anyone wanting to achieve this "painted on look" for German Tactical Numbers.

Highly Recommended.

Thanks to Voyager Model for the Review samples.

Luke Pitt



## TASCA

### 1:35 JERRY CANS

#### ITEM NO. 35-L29 1000 - GERMAN EARLY WAR JERRY CAN SET C

Tasca has previously released highly detailed Jerry Can kits and this is the third German set in their growing range. These are stunning representations of the real thing and really up the ante for the after market. Tasca has chosen to offer two types of Jerry Can of the early war period by different manufacturers. These feature diagonal stamping like US cans unlike the later with the square pattern in the middle.

The stampings are: Kraftstoff 20l, Feuergefährlich 1940, 184 Wehrmacht and Kraftstoff 20l, Feuergefährlich 1939. Each has a different manufacturers logo; AMBI-BUDD Presswerk Berlin & Fischer A.-G. F&R Blech-U. Metallwarenfabrik Göppingen. Assembly is simple with two halves, a cap, a handle and the paper spacer. The spacer represents the stamp seam that is welded together to manufacture the real thing and is noticeable in this scale when absent. Previous sets had photo-etched spacers. I am not a fan of the paper as I got a bit of swelling with Testor's glue on the corner I tried. White glue seemed a bit better but I would have preferred plastic or PE. These are an excellent addition to the range and will be popular for early to mid-war German vehicles offering a different look to the more familiar German Jerry Can.

Highly Recommended.



#### ITEM NO. 35-L30 1000 - ITALIAN WWII JERRY CAN SET

This is the first set of after market Italian Jerry Cans that I have seen in mainstream media. The Italians (& the Brits) copied the German Design and this kit represents them. The Italian Can has the more familiar stamping pattern (as does the British copy) however my references indicate that this was on one side only with the reverse being a Diagonal. Possibly there were variants and my references are thin on this subject. The stampings are on: 20 LITRI, R.E., I and Brevettato (for words to that effect as my eyesight even with magnification can hardly read it in the plastic).

These follow the same construction as the German cans and have the same paper.

Highly Recommended.

Thanks to Tasca for the samples

www.tasca-modellismo.com

Al Bowie



## ARMORY

### 1:35 MAZ-537 REPLACEMENT WHEELS • ITEM NO. AC 3501

When Trumpeter released their MAZ Tank transporter kits some time ago, issues were raised about their interpretation of the vehicle's tyre size and shape. It is good, therefore, to see Armory has addressed this issue with a set of replacement wheels. The wheels are supplied in a medium size plastic bag with a colour cardboard liner. It should be noted that the tyres are "handed" on the real vehicle (meaning that the tread chevron should be facing downward when looking from the vehicle head on). This has been covered by simply providing 9 tyres and 8 hub castings as separate items. The casting themselves show no air bubbles or imperfections of any kind with the mould plugs thoughtfully removed.

From the look of the tyre casting, it seems the mold for this is one piece (as there is no mold separation line around the tyre). This results in a tyre that features superb tread representation and detail definition. The tread pattern is of particular note and it is almost perfect in its pattern and style. The tyre also exhibits the manufacturer's logos and

directions on the sidewall itself. The hub is provided as a separate item and this casting too provides a level of detail that far exceeds that of the kit parts. The all-important hub disk is of the correct size. The only negative is that there is no distinctive drain hole on the hub outer and the central hub bolt detail seems a little small. It should be noted that there are two recorded hub designs for the MAZ line of trucks. The first (or early) has flutes around the outer hub while the second (or late) has no flutes at all. These replacement wheels represent the latter style. I have tried the Trumpeter rims on these replacement tyres and they fit perfectly so, if you want to depict an early set of rims, use the kit's rims with this set's tyres and hub. A fair bit of cutting and test fitting is required but it is possible. Simply put, this replacement wheel set is quite simply superb and is a very worthwhile addition to the Trumpeter kits. Highly Recommended.

Thanks to Armory for the sample.

Luke Pitt







## HELMUTH'S STRONGHOLDS

### 35-011 VF-216 TOBRUK FOR WHEELED FLAMETHROWER

### 35-003 SK GESCHÜTZSTAND FÜR 2CM/3,7CM FLAK

Helmuth's Strongholds is a company from Holland that produces ceramic diorama accessories, buildings and bunkers. We received two sets for review.

Packaging is professional, using full colour photographs on the front and sides of the box. Inside, wrapped in bubble plastic, are the ceramic parts for the kits. On the SK kit, two of the parts were broken. Marco from HS has informed they have redesigned the way they are packed to minimize the changes of breakage.

Now for the individual kits. First, the SK Geschützstand for 2cm/3,7cm Flak. This is a large kit, though it only has four parts: the front and rear plate of the ground work and upper and lower body of the actual bunker. These last two are the ones that were broken. The other kit is more exotic, as it is a Tobruk for a wheeled flamethrower. Zvezda provide one with their German engineers.

All casting is very well done, with the mould seams on the concrete looking very convincing. There are no large air bubbles I could find, so assembly will be very easy.

The instructions provided are good. I would like to see HS provide some mention of the references they used, or suggestions for kits to place in the bunkers. These are minor quibbles though, and don't distract from a good product. Helmuth's Strongholds have the edge on other diorama makers, as they base their products on actual buildings and bunkers. But small things like spelling on the instructions or layout would lift the level even higher.

Only problem I'm facing now is, how am I going to use them in a diorama? Especially the SK kit is huge, see the photo here comparing it with an M4A1!

On their website, there's more to be seen. The 'Market Garden' series of kits is well worth checking out.

Recommended.

Thanks to Helmuth's Strongholds for the sample [www.helmuths-strongholds.com](http://www.helmuths-strongholds.com)

Martin Dogger



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# Book Reviews

## WARPAINT COLOURS & MARKINGS OF BRITISH ARMY VEHICLES 1903-2003 VOLUME 2

BY DICK TAYLOR

MUSHROOM MODEL PUBLICATIONS GREEN SERIES NO. 4104

For the nation that invented the tank and one having such a military history interspersed with the employment of armoured and non-armoured vehicles, very little is published on British military vehicles. Continuing on the strong foundation of Volume 1, Mr Taylor has added another important title to the slowly growing library on the subject.

Dick Taylor not only leans on his skill as an historian but also his career serving on British Armour from the rank of Trooper upward. This intimate knowledge of British Army vehicles is woven with meticulous and detailed research to provide an excellent reference on British Army vehicle colour schemes and Squadron and callsigns from their beginnings in 1903 until 2003. The Acknowledgements list reads like a who's who of all things British Armour, while the Bibliography looks like the catalogue for the Army Records office and a dream library.

This volume covers the subjects of painting and camouflage of WWII and sub-unit markings and callsigns. These are subjects of great debate and whilst other titles exist that cover these I can think of none that handle it in such detail and in one title.

This volume is thorough and Mr Taylor's research has been extensive, broadly encompassing the subject paint and camouflage in a mere 100 odd pages, with callsigns and sub unit markings and callsigns in an additional 75. Text is presented in sensible groupings and well supported by copies of official schemes and many great photos of actual examples. Miscellaneous and local schemes have been covered in addition to the official schemes, which was a pleasant surprise.

The Author has not confined his research to Army equipment and vehicles but includes RN & RAF vehicles alongside the more common Army schemes. A chronological listing of schemes and a thorough section on the paints including the various standard and non standard families of paint used provide a wealth of information to the reader.

I found one snippet of information unearthed from an Australian Middle Eastern War Diary regarding the much debated Caunter scheme particularly interesting given the debates that face amongst the modelling community on colours: "There is no real check (i.e. quality control) on actual colours to be used for camouflage, and the present colours supplied are just copies taken many times by different local manufacturers. The result is that the colours supplied vary a lot". The section concludes with colour plates of various AFV's in a variety of schemes. The second half of the title is devoted to what many consider a black art – British Sub Unit markings and Call signs. This is highly welcome and covers not only World War II but spans the period WW I through to 2003 Iraq. This section has many tables illustrating the very confusing array of Squadron and Troop markings used and explain a lot in an easy to understand format. The reader will need to take their time with this title as the amount of information is enormous. Despite many claims by confused modellers over the years, the British used a system and it does make sense. It is like cricket – it makes sense once you know the rules and have watched it a few times.



Non-standard (2 Digit) callsign systems are covered in great detail and the listing for a few of the formations that used these is very welcome. It also illustrates that these were not transferable between formations with differences quite apparent. The only error I found in the book was in the captioning of a well known photo of a 33 AB Sherman I (Hybrid) labelled as possibly a Staffordshire Yeomanry vehicle (They used Sherman III's and were in 27 AB). The actual vehicle is either 144 or 148 RAC.

Mr Taylor has gone to the extra mile and included The Royal Artillery System and ultra rare listings for softskins where callsigns were used such as RASC DUKW's in the Normandy campaign.

Post-war callsigns and geometric signs are given equal time to the extensive WWII coverage and individual conflicts and the official callsign systems of the 1960s, 70s and 80s are documented. Iraq 2003 and Batus end the section, followed by References & Bibliography which include official documents and published references which give an insight into the thoroughness of research undertaken.

The title is filled with clear images and diagrams of the official schemes and many of these are supplied in colour with many colour illustrations of the various Geometric and vehicle markings. This balance really lifts this book above its peers.

I claimed in my review of Volume 1 that I thought it was of the best references on the subject I have read. After reading Volume Two I am more than happy to add this title to the same pedestal and look forward to Dick Taylor's Vol III & IV but also his title on British Army AFV Crewman of WWII. If I had any criticism of the book it would again be some the captions. A little more information would reinforce the information in the text. For instance there is a well known picture of a Guards Armcd Sherman which is labelled as "Guards Sherman Firefly 2C using the later system" I believe it would have been more beneficial to identify the Tp, Vehicle CS and Sqn shown thus illustrating the system.

I would recommend this book for those with an interest in British military vehicles whether as a modeller, Historian or collector. It is well written, superbly researched and presented in an easy to read manner. I believe this will become an essential title for modellers of WW2 British Armour and I eagerly await the follow ons. Highly recommended to the Collector, Modeller or Historian.



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#### SS5714 - M24 Chaffee Walk Around



The M24 was armed with a 75mm main gun, the Chaffee was able to dispatch many of the foes its predecessors had unsuccessfully faced, and the M24's torsion bar suspension gave it a lower profile and smoother ride while making it an improved gun platform. Produced for the US military until 1950, the Chaffee continued to take the field around the world until well into the 1970s. Packed with over 200 photos, plus colour art and profiles; 80 pages.

#### SS7007 - Great Battles of the World: Britain 1940



The RAF Fights a Desperate Battle Against the Luftwaffe. The confrontation between Britain's Royal Air Force and Germany's Luftwaffe was the first large scale success against Hitler's aggression, and it is one of the defining episodes in the long history of the British nation. Very inclusive account includes comparison of the Spitfire Mk.I vs Bf 109E, the bombing of London, Operation Sea Lion, Italian involvement, foreigners in the RAF and the nature and personalities of the opposing commanders. This volume allows the reader to experience the titanic battle as never before: tactics, aircraft, equipment, uniforms, and the men and women who lived it. Enriched with color and b/w photographs (including 10 page Photographic Tribute to the Battle of Britain), color maps, 50 aircraft profiles and 9 color uniform illustrations. A fitting tribute and record of "their finest hour", 160 pages.

#### SS7005 - Great Battles of the World: Berlin 1945



By the dawn of 1945, the Western Allies had driven back Hitler's last, desperate effort in the Ardennes. However, the Allies' insistence on Germany's unconditional surrender deterred the Germans from making any concession over ending the war - Hitler and the Nazi faithful saw their only option to be a fanatical Wagnerian stand leading only Germany's ruins to commemorate the tragedy. Further, it was already clear that another kind of war was right around the corner. The Soviets had already reached Budapest and the Oder River; it was obvious who would dominate Eastern Europe. The only hope for America and Britain to retain what they could of Central Europe was to take Berlin, but the 'Russian steamroller' forestalled them. Massive Soviet forces attacked the city in April 1945 - the last act of the confrontation between the Communists and the National Socialists and the first act of the Cold War. Illustrated with color and b/w photographs, color maps, 8 aircraft and 9 armor profiles, and 14 color uniform plates; Stavropoulos, Vourliotis, Tseliatis, Kotoulas, Valmas, and Zouridis. Great Battles of the World; 128 pages.

#### SS5713 - Panzer 38(t) Walk Around



The Panzerkampfwagen 38 (tschechisch) Armoured Combat Vehicle 38 (Czech) was one of the most important tanks in the Wehrmacht arsenal in the first half of WWII. Originally produced near Prague as a light tank LT vz. 38 - Lehty Tank vzor 38. Rechristened as the German name Pz.Kpfw.38(t), the vehicle saw action in the Polish and French campaigns and took part in the invasion of the Soviet Union during the summer of 1941. Illustrated with over 300 photographs, color art, and profiles; 80 pages.

#### SS5712 - M3 Medium Tank Lee (Lee & Grant) Walk Around



The M3 Medium Tank was designed as an answer to European battlefield conditions at the start of WWII. The solution was the M3's unconventional design, which features a 75mm main gun mounted in a sponson on the right, front of the hull. The British dubbed it 'General Grant' and named the US Army version 'General Lee'. This book takes a detailed look at the M3 Tank with more than 200 photographs, color profiles and detailed line drawings. 80 pages.

#### SS5605 - ELCO 80 PT Boat On Deck



Say "PT Boat" and the image that comes to mind is that of the 80-foot patrol torpedo boat built by the Electric Launch Company (ELCO) in Bayonne, New Jersey. A trio of Packard marine engines, delivering 1200 to 1500 horsepower each, gave the PT Boats speeds of 40 knots. Packed Over 200 photographs, plus color art and profiles; 80 pages.

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# Next Issue

On sale December 3rd 2009

## Red Beach One

Still on the Jeep theme, Kev Smith presents a diorama with Tamiya's Ford GPA as the centrepiece.

## Night Fighting Giant

Brian Balkwill brings us a hypothetical night-fighting E-100 finished in a remarkable lozenge camouflage scheme.



## Euro Militaire 2009

Marcus Nicholls relives his busy weekend at Folkestone.

### FOR YOUR SAFETY

Don't forget, when using solvents such as glues, paints, thinners and cleaning agents, always ventilate your work area thoroughly and wear a face mask.

When using power tools, side cutters or any tool that can suddenly break or create high-speed airborne particles, wear approved eye protectors with hard, clear lenses. Please always model in safety!



## Jeep Jeep!

Jose Brito recreates Theodore Roosevelt Junior's personal Jeep in Normandy, June 1944, while Robert Notman describes Willys Overland's early Jeeps in Issue 44's 'Think Tank' reference article.



...and much more!

Due to many influencing factors, we cannot guarantee the appearance of the above projects, but we'll try our best!

# Model MILITARY INTERNATIONAL

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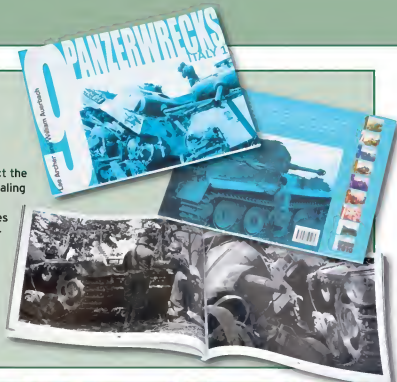


## EDITOR'S CHOICE PANZERWRECKS 9 ITALY I

"Panzerwrecks 9, Italy 1" might sound like a lop-sided soccer score but it is in fact the latest in the excellent reference series from Lee Archer and William Auerbach dealing with German vehicles in various stages of abandonment, decay and destruction. The subject for this brand new volume is abandoned and wrecked German vehicles in Italy. Photo reproduction is excellent, with a large proportion appearing as full-page images. The photos are interspersed with unit insignia by Barry Crook, and several illustrations.

In common with previous releases, this volume is presented in a landscape format on glossy paper with large and well-reproduced wartime images. This title will be a fantastic source of inspiration for modellers and researchers alike. It has gone straight to the front of my pile of references!

Available online from Panzerwrecks  
[www.panzerwrecks.com](http://www.panzerwrecks.com)



## - STOP PRESS - STOP PRESS - TAMIYA'S 1:35 ISU-152 HITS THE EDITOR'S DESK

**T**he ISU-152 was a heavy Soviet self-propelled gun based on the chassis of the excellent IS-2 tank.

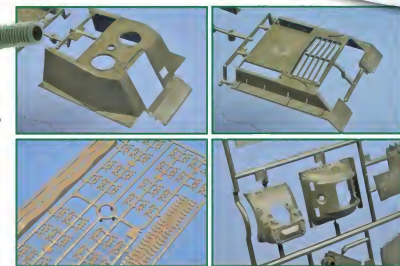
The ISU-152 featured a large, heavily armoured fixed superstructure mounting the powerful ML-20S 152mm howitzer. This remarkable gun could offer indirect fire support over distances of up to 15 km, or penetrate 120mm of armour at 1 km, making it a fearsome weapon against German heavy tanks and fixed fortifications alike.

Two model companies have released 1:35 scale ISU-152 kits in the last decade. Russian company Zvezda was first out of the blocks with their effort, which is dimensionally accurate but oversimplified in some areas by today's standards. The most obvious weakness is the

engine deck, which features solid plastic vents moulded in place. The four-piece vinyl tracks are pretty awful too, being inflexible and therefore difficult to shape to the characteristic sag along the top track run. Italeri reboked this kit under their own label a few years later.

Dragon has also released an ISU-152 in 1:35 scale. This is much better than the Zvezda kit in terms of detail and surface texture. It also features a nice set of individual link tracks - much more appropriate for this vehicle. The three main deficiencies are undersized road wheels (up to 2mm too small in diameter), slightly short lower hull height and a short main gun barrel.

Enter Tamiya at the end of 2009 with their new 1:35 scale "Beast Killer". The lower hull, running gear



and tracks are the same as those supplied with Tamiya's recent IS-2 kit. The split-style tracks are made up from straight lengths and individual links. Tamiya supplies a clever jig to set the upper run to an appropriate level of sag - a nice touch. A second jig is included to ensure that the road wheel axles are properly aligned.

The mantlet and forward hull feature heavy cast texture, while the superstructure sides are pitted to represent rolled armoured steel. Photo-etched grilles are provided for the engine deck vents, with additional plastic parts installed to offer the impression of the ventilation structure below. The chunky gun barrel is split into left and right halves, with the distinctive slotted muzzle brake

moulded as a single piece, so there will be no seams to worry about here. The gun barrel will elevate, but you will need to trim a little plastic from the edge of the mantlet to permit lateral movement.

A DSHK 12.7mm machine gun, two crew figures and tow ropes are also included, along with four marking options.

We will be taking a closer look at Tamiya's 1:35 ISU-152 in the next issue of MMI, but it looks pretty impressive so far! ■



## ERRATA HOBBY BOSS FITTERS' AMTRAK AND PERSHING

I made an error in the Previews of Hobby Boss' 1:35 scale M26 Pershing and AAVR-7A1 in Issue 43 of Model Military International. The samples were in fact supplied by Creative Models, who are the UK Distributor for Hobby Boss kits. I do apologise for this error. You can check out Creative Models' website at [www.creativemodels.net](http://www.creativemodels.net)

## BIG KV-1 IN TMMI

Marcus Nicholls has wasted no time building the brand new 1:16 scale Radio Controlled Tamiya KV-1. This impressive model is described in a construction article in Issue 169 of Tamiya Model Magazine International. Well worth a look!





## Sd.Kfz.167 StuG.IV EARLY PRODUCTION

Smart Kit

Engineered for modelling enjoyment

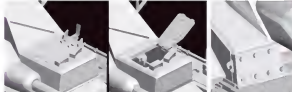
Plastic parts with enhanced detail

Unprecedented value

Ready for instant assembly!



- Newly tooled StuG.IV Early Production fighting compartment authentically reproduced
- Side-skirt armor plates can be installed separately
- Newly designed side-skirt armor produced in metal for scale thickness
- Newly tooled armor brackets realistically detailed



- Newly designed driver's compartment wipers/cops
- Driver's hatch w/interior detail can be assembled open/closed

- Front superstructure armor winch detail



- Radio set and seat included

- Newly tooled spare-wheel rack w/wheel on upper hull side

- Hatches can be assembled open/closed



- Commander's hatch w/interior details can be assembled open/closed

- Optional spare-track rack on hull rear armor



- Realistically reproduced lower hull made by 2-directional side mold; bolts and rivets delicately represented on hull bottom

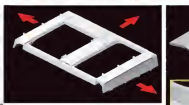


- Spare-track rack on frontal armor of lower hull

- Duct flaps reproduced w/photo-etched parts



- Multi-directional slide-molded superstructure



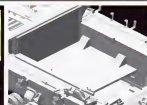
- One-piece gun barrel
- Slide-molded muzzle brake



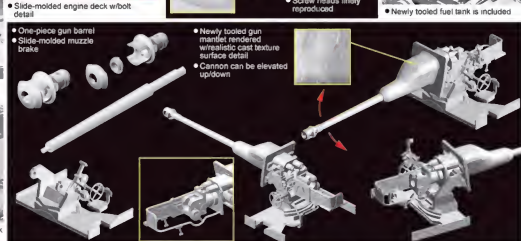
- Easy-to-assemble upper hull
- Multi-part upper hull offers maximum detail
- Fighting compartment armor w/accurate weld seams
- Optional rain guard on fighting compartment



- Roof armor w/accurate weld seams
- Screw heads finely reproduced



- Newly tooled fuel tank is included



- Gun breech and recoil guard fully reproduced
- Gun sight and hand wheels w/accurate detail
- Recoil and recuperator cylinders accurately represented



- Slide-molded periscope sight made from clear part
- Commander's cupola periscopes made from clear parts

- Engine hatches can be assembled open/closed
- Photo-etched parts for engine-deck exhaust grill



- Newly tooled fenders w/wire-mesh pattern on both sides
- Two types of fender frontal provided



- Detailed idler wheels w/etched texture
- Photo-etched parts for idlers to accurately represent undercut detail
- Road wheels, sprockets, idlers and return rollers authentically reproduced



- Detailed Magic Tracks



# RUSSIAN HEAVY SELF-PROPELLED GUN JSU-152



1/35  
SCALE

## The Berlin Beast

1/35 MM Series Russian Heavy Self-Propelled Gun JSU-152

Item 35303

Now joining the 1/35 Military Miniature Series is the Russian Heavy Self-Propelled Gun JSU-152 which first appeared in the summer of 1944. It used the JS-2's heavy tank chassis and was armed with a fearsome 152mm howitzer. In creating this accurately reproduced model, Tamiya designers visited both the Central Museum of Armed Forces and the Kubinka Tank Museum in Russia for extensive research. The model accurately depicts the fortress-like fighting compartment, the ferocious gun mantlet, and its huge gun barrel. With the arrival of the JSU-152 and its ability to knock out German Tiger and Panther tanks, it was given the name "Beast Killer" by Russian soldiers and led the way to Russian victory at the Battle of Berlin. Even when displayed, the prolific form of the JSU-152 will shine out.



Image shows actual JSU-152.



Cast metal surface texture on mantlet and rough steel plates are richly reproduced.



Commander and loader (torso) figures included. DSHK anti-aircraft machine gun is highly detailed.

4 kinds of markings such as those for the Battle of Berlin are included.



In addition to the white band and red star marking, applying a winter camouflage is truly enjoyable.

Each hatch can be depicted either open or closed. The loader's hatch is movable.

Photo-etched parts to depict the engine grilles are included.



Equipment such as the picture features a sharp finish.

Belt and assembly type tracks are included.

Length: 258mm

### 1/35 MM Russian Comrades

Also new to the 1/35 MM Series is this set of 5 figures which includes a shooter and spotter for the PTRD anti-tank rifle, a soldier holding a hand grenade, and a loader and a shooter for the Maxim heavy machine gun.



Russian Infantry Anti-Tank Team Item 35306



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